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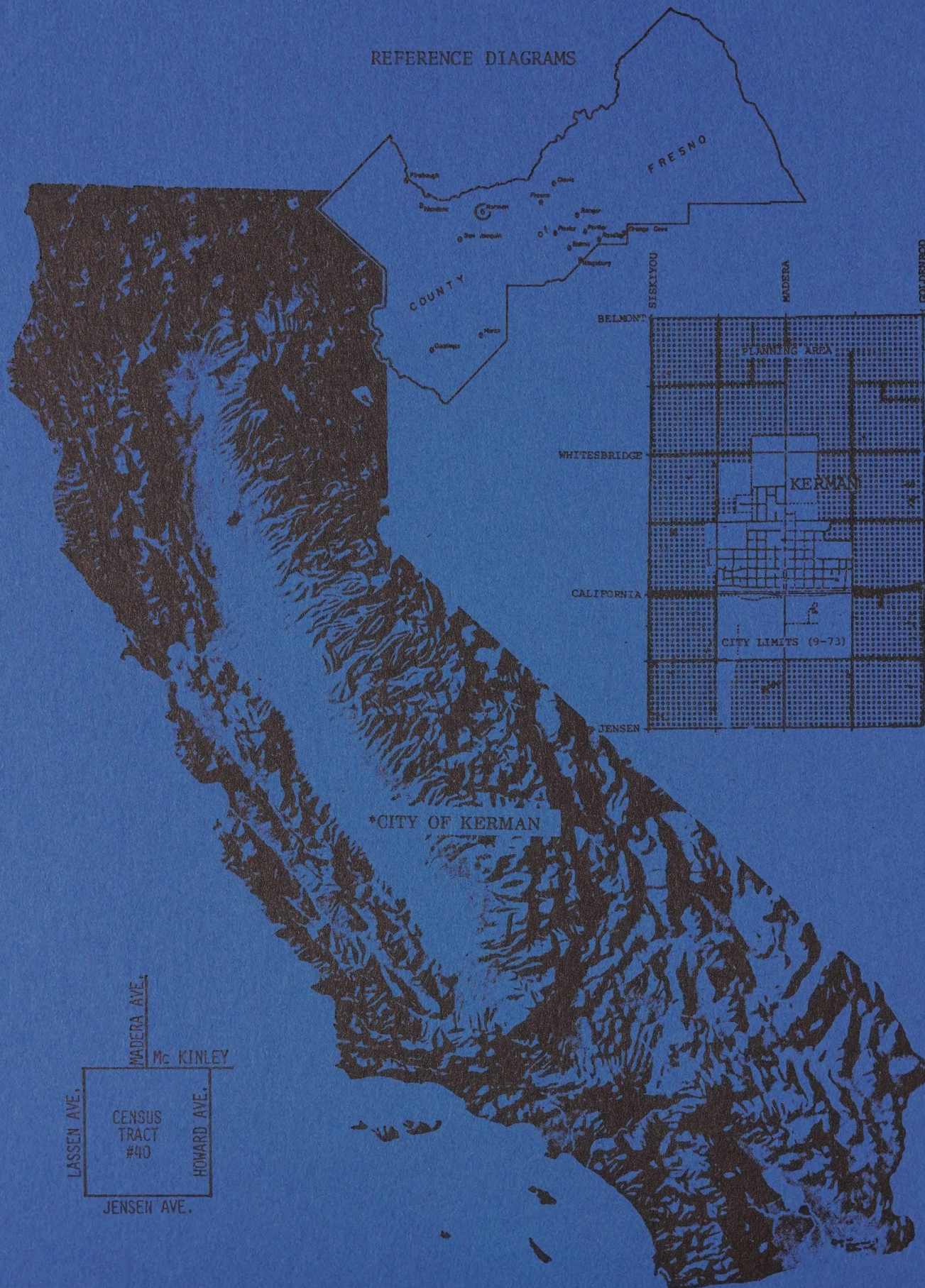
THE KERMAN GENERAL PLAN

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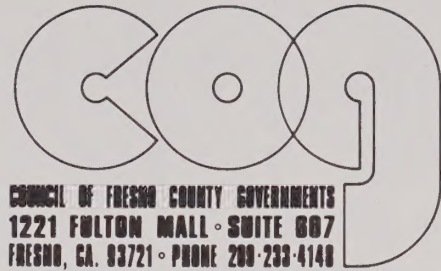


CITY OF KERNAN

THE KERNAN GENERAL PLAN

city planning Kernan

Prepared Under the Technical Assistance Program
Council of Fresno County Governments
Project Director: Jeffrey Dennis Webster



November 26, 1973

The Mayor of the City of Kerman
The City Council
The Planning Commission
The Citizens Advisory Committee, and
The Residents of the City of Kerman
Kerman, CA 93630

Dear Citizen:

This document contains the *General Plan for the City of Kerman, California*. We believe the adopted objectives, principles and concepts, together with the various implementing ideas contained herein, will assist the Planning Commission and City Council in their determination of appropriate actions as they guide the City's growth and change in the years ahead.

We recommend that the plan be kept under continual review, and amended as necessary to keep it a viable planning tool.

It has been our pleasure to assist the City of Kerman in the preparation of this Plan. We wish to thank the members of the Citizens Advisory Committee, Planning Commission, the City Council, City staff, and numerous Kerman residents for the valuable guidance and advice provided to our Project Director, Mr. Jeffrey Dennis Webster.

Respectfully submitted,
Council of Fresno County Governments

PETER R. OSWALD, Executive Director

DAVID D. KNIGHT, Director of Planning

JEFFREY DENNIS WEBSTER, Associate Planner-Project Director

Enclosure

PRO:DDK:JDW:mk



TELEPHONE

209-846-9387

CITY OF KERMAN

CALIFORNIA

850 S. MADERA

93630

November 26, 1973

Fresno County Board of Supervisors
2281 Tulare Street
Room 301
Fresno, California 93721

Dear Honorable Members of the Board:

Transmitted herewith is the General Plan for the City of Kerman. We feel that the General Plan will not only assist the Planning Commission and the City Council in their planning duties, but that it will also assist you and your Planning Commission in their planning decisions around Kerman.

It is our intention to maintain the plan so that it will reflect current feelings of the community as a whole. As such, we look forward to working with your planning staff in developing and improving the area.

Sincerely,

W. M. Morgan

W. M. Morgan, Mayor
City of Kerman

WMM:nj

RESOLUTION NO. 63

A RESOLUTION OF THE CITY OF KERMÁN PLANNING
COMMISSION RECOMMENDING THE ADOPTION OF THE
GENERAL PLAN OF THE CITY OF KERMÁN

WHEREAS, the Kerman City Planning Commission has conducted a duly noticed public hearing on the 27th day of August, 1973, at the hour of 8:00 o'clock P.M. at a regular meeting of said Planning Commission for the purpose of considering the adoption of the General Plan of the City of Kerman; and

WHEREAS, notice of said hearing was duly and regularly given for the time and in the manner required by law; and

WHEREAS, prior to said hearing a Negative Declaration was filed by the City of Kerman under the City of Kerman Environmental Impact Procedure Ordinance with reference to the adoption of the General Plan for the City of Kerman; and

WHEREAS, the Kerman City Planning Commission has reviewed said General Plan and has duly considered the same together with the evidence presented at said hearing, and has found that the adoption thereof is necessary to promote and maintain the public health, safety, comfort and general welfare;

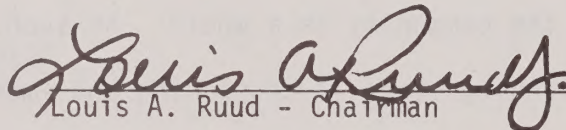
NOW, THEREFORE, THE CITY OF KERMÁN PLANNING COMMISSION DOES HEREBY RESOLVE AND RECOMMEND the adoption by the City of Kerman of the General Plan of the City of Kerman as on file with the Secretary of said Planning Commission and as presented to this meeting; and the Secretary of this Planning Commission is hereby instructed to endorse thereon the approval and recommendation contained in this resolution.

DATED: August 27, 1973.

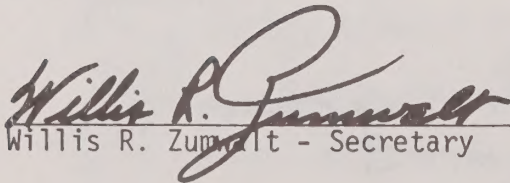
AYES: Hill, Halstead, Knowles, Ramirez, Zumwalt

NOES: None

ABSENT: Clark, Ruud


Louis A. Ruud - Chairman

ATTEST:


Willis R. Zumwalt - Secretary

RESOLUTION NO. 959

RESOLUTION OF THE CITY COUNCIL OF THE CITY
OF KERMAN ADOPTING THE GENERAL PLAN OF THE
CITY OF KERMAN

WHEREAS, the City Council of the City of Kerman has scheduled a duly noticed public hearing on the 4th day of September, 1973, at the hour of 8:00 o'clock P.M. at a regular meeting of said City Council for the purpose of considering the adoption of the General Plan of the City of Kerman; and

WHEREAS, said hearing was duly adjourned to the regular City Council meeting of September 17, 1973, at which time the adoption of the General Plan of the City of Kerman as presented was fully considered and reviewed; and

WHEREAS, prior to said hearing a Negative Declaration was filed by the City of Kerman under the City of Kerman Environmental Impact Procedure Ordinance with reference to the adoption of the General Plan for the City of Kerman; and

WHEREAS, the Kerman City Planning Commission has duly and regularly adopted its Resolution No. 63 recommending the adoption of the General Plan of the City of Kerman to which resolution reference is made for further particulars; and

WHEREAS, the City Council of the City of Kerman has reviewed said General Plan and has duly considered the same together with the evidence presented at said hearing as aforesaid, and has found that the adoption thereof is necessary to promote and maintain the public health, safety, comfort and general welfare;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF KERMAN DOES HEREBY RESOLVE as follows:

That the General Plan of the City of Kerman on file with the City Clerk as approved by Resolution No. 63 of the Kerman Planning Commission be, and the same is adopted by the City of Kerman.

The foregoing resolution was introduced at a regular meeting of the City Council of the City of Kerman held on the 17th day of September, 1973, and passed at said meeting by the following vote:

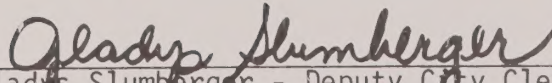
AYES: Coleman, Spikes, Sebastian, Kilen

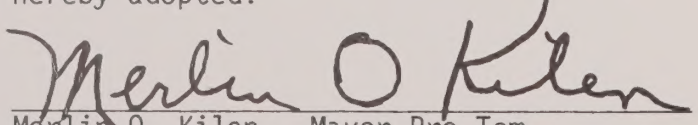
NOES: None

ABSENT: Morgan

The foregoing resolution is hereby adopted.

ATTEST:


Gladys Slumberger - Deputy City Clerk


Merlin O. Kilen - Mayor Pro Tem

ABSTRACT

This legal document, *The General Plan for the City of Kerman, California*, fulfills all legislative requirements to date expressed in section 65303 of the California Government Code. The Plan states General Community Goals and Policies for the City; and sets forth objectives, principles and standards for development in both written and graphic form. The Plan comprises ten mandatory General Plan Elements: Land Use, Circulation, Housing, Conservation, Open Space, Seismic Safety, Noise, Scenic Highway, Safety, and Solid Waste--and three permissive Elements: Recreation, Public Building, Public Services and Facilities. In addition, the document discusses Adoption and Interpretation of the Plan, and identifies strategies by which the Plan may be carried out. It also recommends that the Plan be reviewed annually and updated every five years in order to insure long-term viability.

ACKNOWLEDGEMENTS

In order to prepare the best possible General Plan for the City of Kerman the Project Director has relied on all the aspects of his education and job experiences to compile and develop the best possible product. Many resource personnel have been questioned to give this document proper perspective in areas where the Project Director's expertise was not sufficient at this point in time.

It is important to stress that all sections of this plan have been extensively reviewed by the Citizens Advisory Committee, Planning Commission, City Council, and city employees in open public meetings. The document has also been reviewed periodically by other planning organizations and their personnel for comments and suggestions.

CREDITS

KERMAN CITY COUNCIL

W. M. Morgan, Mayor
Merlin Kilen, Mayor Pro Tem
Luther Coleman
William G. Sebastian
Cliff Spikes
*Don Knouf

KERMAN PLANNING COMMISSION

Louis Rudd, Jr., Chairman
R. W. Clark, Vice Chairman
W. R. Zumwalt, Secretary
Norman Hill
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Barbara Halstead
*Ted Reynolds
Robert Knowles

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Kathy Coit
*Henry Yep
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George Brazil
John Teixeira
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KERMAN RECREATION COMMISSION

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*Marcy Loyd
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*Bill Poage
Gerry Arabian
*Steven Miller
Anita Dettman
Alicia Rios
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Gladys Shimberger, Deputy City Clerk

CITY ENGINEER-ADMINISTRATOR

H. Duane Smith

CITY ATTORNEY

Wilbur K. Kessler

FRESNO COUNTY PLANNING DEPARTMENT

Don Livingston, Director
and Staff

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Kathy Hart, Assistant Planner
Robert Stone, Planning Draftsman
*Carolina Jimenez, Planning Intern
+*Raymond Gonzales, Planning Intern

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+Shirley Redding, Junior Secretary
+*Marilyn Martin, Junior Secretary
+Barbara Poulsen, Junior Secretary
+Missi Kanawyer, Junior Secretary
Lois Campbell, Account Clerk

*former employees

+employees involved in the production of the plan

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1

INTRODUCTION

The Comprehensive Community General Plan for the City of Kerman, California represents a milestone for the citizens. The proposals, concepts, and recommendations contained in this adopted legal document are the result of an intense twenty-one month technical assistance study directed by the Council of Fresno County Governments. Numerous separate and collective meetings were held regularly with the City Council, Planning Commission, Citizen's Advisory Committee, City staff, City consultants and the Project Director. Many resource documents have been reviewed, analyzed, and critiqued for appropriate inclusion. The plan has been publicly reviewed to ensure that the recommendations represent the thinking and concerns of the community.

GENERAL PLAN CONCEPT

In the past and in different parts of the country, various names have been used to refer to this kind of plan; it has been called City Plan, Master Plan, Comprehensive Plan, or General Plan. Regardless of the name used, the purpose and the intent of such a plan are the same. Because the term "*General Plan*" is in wide use in numerous State and Federal statutes as well as in professional planning literature, it is the term which will generally be used throughout this report.

It is the purpose of a General Plan to operate as a long-range, comprehensive guide to public and private decision making.

The General Plan functions as such a guide for these reasons:

1. IT IS "*LONG-RANGE*" IN THAT IT REFLECTS THE ECONOMIC AND POPULATION PROJECTIONS AND THINKING OF THE LOCAL ADMINISTRATION FOR THE NEXT SEVERAL YEARS.
2. IT IS "*COMPREHENSIVE*" SINCE IT IS BASED ON DETAILED CONSIDERATION OF ALL THE VARIOUS ELEMENTS OF THE CITY ALONG WITH PROJECTIONS OF THE FUTURE NEEDS FOR EACH OF THESE ELEMENTS.

3. IT IS "*GENERAL*" IN THAT IT FORMS A POLICY GUIDE FOR FUTURE DEVELOPMENT BY PROPOSING GENERAL, RATHER THAN SPECIFIC, LOCATIONS AND SIZES OF ELEMENTS.
4. IT ENABLES THE CITY COUNCIL AND PLANNING COMMISSION TO CONSIDER VARIOUS ALTERNATIVES AND TO AGREE ON A DEFINITE SET OF POLICIES TO GUIDE FUTURE GROWTH.
5. IT PERMITS THE CITY TO RELATE SPECIFIC PROJECTS, PROPOSALS FOR DEVELOPMENT, AND ZONING MATTERS TO A COORDINATED TIMING AND DEVELOPMENT.

THE PLANNING PROCESS

Planning is a process that attempts to guide the development of a community in accordance with an established set of goals within the framework of a democratic system of government that is charged with the responsibility of protecting the rights and privileges of its citizens. The strength of the plan lies in its comprehensive approach to urban growth. It indicates the multitude of private and public uses of land which, when considered together to form a visual and descriptive document, sets the course for future growth and change.

Property owners, private groups, institutions, and corporations are able to determine how their individual decisions fit in with the total community. They are able to visualize plans according to how best their individual interests can be served and develop proposals for their property accordingly. The General Plan provides a reasonable continuity of land policies.

The plan also provides a guide to the various private and public utilities charged with the responsibility of providing service to the community. The necessary service demands can be determined and facilities can be planned in a most economical and timely manner.

The plan should not be changed or amended "*piecemeal*," but should take into consideration the possible overall effects of proposed changes on *all*

portions of the community and surrounding area. Future changes in the plan to accommodate a development that appears to be desirable may, upon careful study, prove to be costly to both existing public investments and to committed private investment. Review of the policies set forth in the General Plan will provide a means of supporting the City's legislative body in its efforts to attract development where it is appropriate and to deny such privileges where the entire community would be adversely affected.

REQUIREMENTS OF A GENERAL PLAN

The State Legislature has been active in recent years reassessing the requirements of city and county general plans. Many amendments and revisions have been added to make the requirements comprehensive. Section 65302 of the Government Code reads, *"The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:"*

1. LAND USE ELEMENT
2. CIRCULATION ELEMENT
3. HOUSING ELEMENT
4. CONSERVATION ELEMENT
5. OPEN SPACE ELEMENT
6. SEISMIC SAFETY ELEMENT
7. NOISE ELEMENT
8. SCENIC HIGHWAY ELEMENT
9. SAFETY ELEMENT
10. SOLID WASTE ELEMENT (COUNTIES)

In addition to these mandatory requirements, State legislation indicates the following permissive elements: *(legislation makes reference to approximately twelve permissive elements, three of which are important to a community the size of Kerman).*

1. RECREATION ELEMENT
2. PUBLIC SERVICES AND FACILITIES ELEMENT
3. PUBLIC BUILDINGS ELEMENT

In order to highlight the actual requirements, principal features of the plan elements are as follows:

1. A *LAND USE ELEMENT* WHICH DESIGNATES THE PROPOSED GENERAL DISTRIBUTION AND GENERAL LOCATION AND EXTENT OF THE USES OF THE LAND FOR HOUSING, BUSINESS, INDUSTRY, OPEN SPACE, INCLUDING AGRICULTURE, NATURAL RESOURCES, RECREATION, AND ENJOYMENT OF SCENIC BEAUTY, EDUCATION, PUBLIC BUILDINGS AND GROUNDS, SOLID AND LIQUID WASTE DISPOSAL FACILITIES, AND OTHER CATEGORIES OF PUBLIC AND PRIVATE USES OF LAND.
2. A *CIRCULATION ELEMENT* CONSISTING OF THE GENERAL LOCATION AND EXTENT OF EXISTING AND PROPOSED MAJOR THOROUGHFARES, TRANSPORTATION ROUTES, TERMINALS, AND OTHER LOCAL PUBLIC UTILITIES AND FACILITIES. THE CIRCULATION ELEMENT WILL COORDINATE ACTIVITIES SET FORTH IN THE LAND USE ELEMENT.
3. A *HOUSING ELEMENT* CONSISTING OF STANDARDS AND PLANS FOR THE IMPROVEMENT OF HOUSING. IT ALSO INCLUDES PROVISION FOR ADEQUATE SITES FOR HOUSING. THIS ELEMENT OF THE PLAN SHALL ENDEAVOR TO MAKE ADEQUATE PROVISION FOR THE HOUSING NEEDS OF ALL ECONOMIC SEGMENTS OF THE COMMUNITY.
4. A *CONSERVATION ELEMENT* FOR THE CONSERVATION, DEVELOPMENT, AND UTILIZATION OF NATURAL RESOURCES INCLUDING WATER, SOILS, RIVERS, MINERALS, AND OTHER NATURAL RESOURCES.
5. AN *OPEN SPACE ELEMENT* CONSISTING OF DEFINITE PLANS TO MAINTAIN LAND FOR THE PRODUCTION OF FOOD AND FIBER, FOR THE ENJOYMENT OF SCENIC BEAUTY, FOR RECREATION AND FOR THE USE OF NATURAL RESOURCES.
6. A *SEISMIC SAFETY ELEMENT* CONSISTING OF AN IDENTIFICATION AND APPRAISAL OF SEISMIC HAZARDS SUCH AS SUSCEPTIBILITY TO SURFACE RUPTURES FROM FAULTING, TO GROUND SHAKING, AND TO GROUND FAILURES.
7. A *NOISE ELEMENT* IN QUANTITATIVE NUMERICAL TERMS, SHOWING CONTOURS OF PRESENT AND PROJECTED NOISE LEVELS ASSOCIATED WITH ALL EXISTING AND PROPOSED MAJOR TRANSPORTATION ELEMENTS. CONCLUSIONS REGARDING APPROPRIATE SITE OR ROUTE SELECTION ALTERNATIVES OF NOISE IMPACT UPON COMPATIBLE LAND USES SHALL BE INCLUDED IN THE GENERAL PLAN.
8. A *SCENIC HIGHWAY ELEMENT* FOR THE DEVELOPMENT, ESTABLISHMENT, AND PROTECTION OF SCENIC HIGHWAYS.
9. A *SAFETY ELEMENT* FOR THE PROTECTION OF THE COMMUNITY FROM FIRES AND GEOLOGIC HAZARDS INCLUDING FEATURES NECESSARY

FOR SUCH PROTECTION AS EVALUATION ROUTES, PEAK LOAD WATER SUPPLY REQUIREMENTS, MINIMUM ROAD WIDTHS, AND CLEARANCES AROUND STRUCTURES.

10. A *SOLID WASTE ELEMENT* CONSISTING OF A COMPREHENSIVE AND COORDINATED SOLID WASTE MANAGEMENT PLAN FOR ALL WASTE DISPOSAL WITHIN THE COUNTY. THE PLAN IS TO BE FORMULATED BY COUNTY AGENCIES.

Permissive General Plan Elements

1. A *RECREATION ELEMENT* SHOWING A COMPREHENSIVE SYSTEM OF AREAS AND PUBLIC SITES FOR RECREATION.
2. A *PUBLIC SERVICES AND FACILITIES ELEMENT* SHOWING GENERAL PLANS FOR SEWERAGE, REFUSE DISPOSAL, DRAINAGE, LOCAL UTILITIES, RIGHTS-OF-WAY, AND EASEMENTS AND FACILITIES FOR THEM.
3. A *PUBLIC BUILDING ELEMENT* SHOWING LOCATIONS AND MANagements OF CIVIC AND COMMUNITY CENTERS, PUBLIC SCHOOLS, LIBRARIES, POLICE AND FIRE STATIONS, AND OTHER PUBLIC BUILDINGS.

(Author's Note--Items 2 and 3 have been combined for discussion purposes)

Each element of Kerman's General Plan has been carefully prepared to include the detailed legislative requirements in the various governmental codes.

PREPARATION OF THE GENERAL PLAN

Planning for the future of Kerman has incorporated information from many sources. It is, for the most part, based on these items:

"FACTUAL DATA" AS OBSERVED AND OBTAINED IN THE FIELD;

RESEARCH BY PLANNERS AND ECONOMISTS;

RECOMMENDATIONS BY ENGINEERS, PUBLIC ADMINISTRATORS AND CITIZENS;

REVIEW AND COORDINATION WITH PLANNING PROPOSALS OF THE REGION, THE COUNTY, AND THE CITY PLANNING OFFICIALS OF ABUTTING JURISDICTIONS;

AND OBSERVATION BY PREDOMINATE PLANNERS ON THE SUBJECT OF GENERAL PLANS.

Prior to this study there had been no formally adopted long-range overall guide prepared for the City of Kerman to define its role in Fresno County.

2

BASIC DETERMINANTS

PHYSICAL ENVIRONMENT

ORIENTATION AND SETTING

The incorporated City of Kerman lies in the central portion of the San Joaquin Valley, between two great mountain ranges, the Sierra Nevada on the east and the Coast Range on the west. It is located 15 miles west of Fresno within the agriculturally productive eastside of the San Joaquin Valley. Existing urban development is generally contained in the square mile bounded by Whitesbridge, Vinland, California, and Del Norte Avenues, and is predominantly within the city limits. Peripheral planning boundaries of the General Plan extend a mile north and south and a half mile east and west of the present City boundaries. The area contains six square miles bounded on the north by Belmont Avenue, on the east by Goldenrod Avenue, on the south by Jensen Avenue, and the west by Siskiyou Avenue.

TOPOGRAPHY AND DRAINAGE

Kerman is approximately 215 feet above sea level. The surrounding topography appears level but slopes slightly to the southwest. The City is about 6 miles south of the San Joaquin River and 8 miles northeast of the Fresno Slough which provide the natural drainage channels for this portion of the San Joaquin Valley.

SOILS

The rich and deep alluvial soils which compose the relatively flat floor of the eastside of the San Joaquin Valley are generally considered suitable agriculture land. Soils in the Kerman area are predominately in capability Classes II and III. Both categories are suitable for cultivation although the Class III soils southwest of Kerman require more extensive reclamation and conservation for cultivated crops. Kerman is just beyond

the western edge of the broad belt of prime, Class II lands lying to the northeast, and with the introduction of irrigation, this soil is highly productive with few limitations or hazards to farming.

CLIMATE

Kerman generally follows the same pattern in overall climate as Central Fresno County. The average year contains 196 clear days, 74 partly cloudy days. The climate is considered semi-arid with the dry season falling between May and October. The wet season is between November and April.

The average rainfall is 8.61 inches per year and the winds generally come from the northwest and range from 4 to 12 miles per hour. The following temperature ranges show the normals for an average year.

Average Summer High	98 Degrees F
Average Summer Low	56 Degrees F
Average Winter High	55 Degrees F
Average Winter Low	33 Degrees F

The extreme summer high is 110-115 degrees F. There is some fog in the winter months from December through February. There also is a uniform frost and freezing period between November and March.

HISTORICAL PERSPECTIVE

Kerman was envisioned as a residential community for the benefit of farmers and their families. The original map was filed by the Fresno Irrigated Farms Company and adopted by the Fresno County Board of Supervisors on March 12, 1906. The town was first surveyed by Scott McKay and laid out just north of the Southern Pacific Railroad tracts. The streets went from "A" through "G" (east-west) and "1st" through "9th" (north-south).

Land division within the City of Kerman is typical of most valley

towns, with a grid pattern of streets forming square or rectangular blocks generally 400 feet in dimension containing lots with 50 foot frontage and 140 feet depth.

A detailed report on the history of Kerman has been compiled by the Reverend Donald W. Wells, entitled "History of the Kerman Area." The report capsulizes the important people and changes in the community year by year from around the 1800's through most of the 1950's. The report is available for review in the Kerman branch of the County Library.

As a rural service community and because of its location near the Fresno-Clovis Metropolitan Area, Kerman will experience continued growth even as rural migration declines. Improved regional transportation, principally the development of Interstate 5 and State Route 180, and further agricultural development enabled by improved water supply, predicate Kerman as being among the expanding communities of Fresno County.

POPULATION CHARACTERISTICS

The rate of population growth in Kerman was nearly three times that for the County from 1960 to 1970. Kerman is also located in one of the few rural census tracts to experience a population increase in the decade. Nearly 80 percent was in the town of Kerman. One explanation for the growth may be the area's proximity to the Fresno-Clovis Metropolitan Area.

The age, sex, ethnic, and income characteristics of the census tract which includes Kerman, however, reflect the typical pattern of valley communities which serve as centers for persons employed in farm labor and related agricultural industries.

ETHNIC CHARACTERISTICS

The population of Kerman is 96 percent white. There are no Negroes in the town, but about 40 percent of the population is Mexican-American (included as part of white).

FIGURE 1
RACE AND ETHNIC GROUP

	CENSUS TRACT #40		CITY LIMITS	FRESNO COUNTY
	1960	1970	1970	1970
TOTAL PERSONS	3,090	3,965	2,667	413,329
WHITE NON-SPANISH	85.7%	53.5%	67.8%	65.0%
SPANISH	13.3%	43.6%	28.2%	25.3%
BLACK	0.4%	N.A.	0.1%	4.9%
INDIAN	N.A.	N.A.	N.A.	0.5%
JAPANESE	N.A.	N.A.	N.A.	1.5%
CHINESE	N.A.	N.A.	N.A.	0.6%
FILIPINO	N.A.	N.A.	N.A.	0.2%
ALL OTHERS	0.6%	2.9%	3.8%	2.0%
TOTAL	100.0%	100.0%	100.0%	100.0%

AGE AND SEX CHARACTERISTICS

The population was evenly divided at all ages between male and female both in 1960 and 1970. There has been some but not a significant age distribution change since 1960.

FIGURE 2
AGE DISTRIBUTION

	FRESNO COUNTY		CENSUS TRACT #40	
	1960	1970	1960	1970
UNDER 18 YEARS	39.0%	36.0%	44.5%	46.1%
18 - 64 YEARS	53.0%	55.0%	47.2%	46.7%
OVER 65 YEARS	8.0%	9.0%	8.3%	7.2%
TOTAL	100.0%	100.0%	100.0%	100.0%

FIGURE 3
SEX BY AGE DISTRIBUTION

	CENSUS TRACT #40 - 1970	
AGE	MALE	FEMALE
15 & OVER	49	54
65 TO 74	89	92
60 TO 64	70	85
55 TO 59	83	80
45 TO 54	175	191
35 TO 44	192	235
25 TO 34	235	239
20 TO 24	127	144
15 TO 19	212	206
10 TO 14	261	215
5 TO 9	288	228
UNDER 5	213	202
TOTAL	1994	1971
MEDIAN AGE	21.5	25.2

MARITAL STATUS

In the Kerman area 67 percent of the people over the age of fourteen are married.

FIGURE 4
MARITAL STATUS*
Of People Over the Age of 14

	CENSUS TRACT #40	
	1960	1970
SINGLE	22.7%	23.9%
MARRIED	67.6%	66.9%
WIDOWED	6.8%	6.4%
DIVORCED	2.9%	2.8%
TOTAL	100.0%	100.0%

*BASED ON SAMPLE

EDUCATION

In 1970, the average adult in Kerman had completed 9.2 years of school; 31.9 percent of the people 25 years old and over had graduated from high school. These figures are fairly typical averages for farm service communities in the valley. The median school years completed in the County in 1970 was 12.1, and 52.7 percent had finished high school.

FIGURE 5
EDUCATIONAL ATTAINMENT
Persons 25 Years Older & Older

	CENSUS TRACT #40	FRESNO COUNTY
	1970	1970
TOTAL PERSONS	1,282	213,392
ELEMENTARY	39.8%	26.7%
HIGH SCHOOL	40.3%	45.5%
COLLEGE	14.5%	24.7%
NO SCHOOL COMPLETED	5.4%	3.1%
TOTAL	100.0%	100.0%
MEDIAN YEARS COMPLETED	9.8%	12.1%

INCOME

Family income in Kerman is considerably below the County average, but it does not appear to be more than \$1,000 below the County average. The 1969 school data showed that 27 percent of the children came from families receiving Aid to Families with Dependent Children.

FIGURE 6
INCOME
Of Families and Unrelated Individuals

	CENSUS TRACT #40		FRESNO COUNTY
	1959	1969	1970
UNDER \$ 3,999	42.2%	28.2%	19.2%
\$ 4,000 - \$ 5,999	23.4%	16.2%	13.0%
\$ 6,000 - \$ 7,999	11.7%	14.1%	13.3%
\$ 8,000 - \$ 9,999	6.8%	12.5%	13.2%
\$10,000 - \$14,999	6.6%	21.3%	23.9%
\$15,000 - OVER	2.3%	7.7%	17.3%
TOTAL	100.0%	100.0%	100.0%
MEDIAN INCOME	\$4,058	\$7,000	\$9,789
MEAN INCOME	N.A.	\$7,780	\$9,901

Kerman has another segment of its community that cannot be overlooked. Nearly sixty percent of all the families living within census tract 40 are below the poverty level index.

FIGURE 7
INCOME
Less Than Poverty Level

CENSUS TRACT #40 - 1970

FAMILIES	180
PERCENT OF ALL FAMILIES	57.5%
MEAN FAMILY INCOME	\$2,833
MEAN INCOME DEFICIT	\$1,703
FAMILIES WITH FEMALE HEAD	63
UNRELATED INDIVIDUALS	31
PERCENT OF ALL UNRELATED INDIVIDUALS	67.4%
MEAN INCOME	N.A.
MEAN INCOME DEFICIT	N.A.

The poverty level index provides a range of poverty income cutoffs adjusted by such factors as family size, sex of the family head, number of children under 18 years, and farm and nonfarm residence.

At the core of this definition of poverty is a nutritionally adequate food plan designed by the Department of Agriculture for "emergency or temporary use when funds are low." The index allows for differences in the cost of living between farm and nonfarm families by setting the poverty thresholds for farm families at 85 percent of the corresponding levels for nonfarm families

EMPLOYMENT

The primary source of employment for Kerman families is agriculture, with almost 40 percent of the work force involved in agriculture. Agriculturally related industries employ another 10 percent of the work force. Five cotton gins, a meat and animal by-products processing plant, a sugar beet processing plant, a farm machinery manufacturing plant, and a chemical fertilizer plant are located in or within several miles of the Kerman planning area.

FIGURE 8
EMPLOYMENT

	CENSUS TRACT #40	
	APRIL 1, 1960	APRIL 1, 1970
EMPLOYED	90.4%	92.7%
SEEKING EMPLOYMENT	9.6%	7.3%
TOTAL	100.0%	100.0%

FIGURE 9
OCCUPATION*

CENSUS TRACT #40

PROFESSIONAL, TECHNICAL & KINDRED WORKERS	7.4%
MANAGERS & ADMINISTRATORS EXCEPT FARM	7.4%
SALES WORKERS	10.5%
CLERICAL & KINDRED WORKERS	19.0%
CRAFTSMEN, FOREMEN & KINDRED WORKERS	14.1%
OPERATIVES EXCEPT TRANSPORT	17.1%
TRANSPORT EQUIPMENT OPERATIVES	4.4%
LABOR EXCEPT FARM	1.9%
FARM LABORERS & FARM FOREMEN	5.4%
SERVICE WORKERS	12.8%
PRIVATE HOUSEHOLD WORKERS	-0-
TOTAL	100.0%

*BASED ON SAMPLE

TAXATION

Assessed valuation in the City of Kerman increased nearly 20 percent from 1967-68 to 1973-74, from \$2,885,035 to \$3,606,227.

POPULATION PROJECTIONS

INTRODUCTION

The foundation of a community, as well as its most essential resource, is the people. The size and characteristics of the population are the truest indicators of the level and pattern of demand for goods and services and of the ability to pay for them; they are equally accurate indicators of leadership and labor force quality explicit in economic and community development; and they give dimension to spatial requirements for living, working and playing.

PROJECTIONS

Three population projections have been calculated for the City of Kerman. They are based on the assumption that a favorable attitude of the people of the City toward industrial and business expansion is maintained

FIGURE 10
COMPARATIVE TAX DATA

FRESNO COUNTY				CITY OF KERMAN	
YEAR	ASSESSED VALUE SUBJECT TO TAX RATE	TAX RATE	ASSESSED VALUATION		TAX RATE
1967-68	905,459,279	2.5130	\$2,885,035	GENERAL	\$1.00
				PARKS	.10
				WATER & SEWER BD.	.20
					<u>\$1.30</u>
1968-69	912,976,114	2.8524	\$3,026,670	GENERAL	\$1.00
				PARKS	.10
				WATER & SEWER BD.	.12
				ST. LIGHTING	.27
					<u>\$1.49</u>
1969-70	893,308,038	2.8814	\$2,833,863	GENERAL	\$1.00
				PARKS	.10
				WATER & SEWER BD.	.12
				ST. LIGHTING	.31
					<u>\$1.53</u>
1970-71	897,192,289	3.0154	\$3,159,578	GENERAL	\$1.00
				PARKS	.15
				WATER & SEWER BD.	.12
				ST. LIGHTING	.35
					<u>\$1.62</u>
1971-72	1,005,257,218	3.5680	\$3,647,814	GENERAL	\$1.00
				PARKS	.25
				WATER & SEWER BD.	.06
				ST. LIGHTING	.17
					<u>\$1.48</u>
1972-73	1,067,619,981	3.3196	\$3,688,559	GENERAL	\$1.00
				PARKS	.23
				WATER & SEWER BD.	.04
				ST. LIGHTING	.21
					<u>\$1.48</u>
1973-74	1,075,434,203	3.0524	\$3,606,227	GENERAL	\$1.00
				PARKS	.23
				WATER & SEWER BD.	.02
				ST. LIGHTING	.21
					<u>\$1.46</u>

and upon the following conditions which would influence the future increase of population:

- (1) The long-term trend in growth relationships among the urban area, the County, the valley and the State generally will continue with the Community continuing to gradually increase its relative position in relation to the County.
- (2) Favorable attitude toward in-migration of new people.
- (3) No local disaster.

Background information has been obtained from the following sources:

- (1) The United States Bureau of Census Records. Each ten years the Bureau of Census conducts a count of the existing total population.
- (2) The State of California Department of Finance carries on population studies and prepares population estimates for the State, counties, and some cities.
- (3) Population and employment projections prepared by the Department of Water Resources.
- (4) Tentative population projections for the Fresno Region prepared by the Fresno County Planning Department.

Utilizing the four mentioned sources and assumptions projections have been calculated for the City of Kerman.

(1) *LOW PROJECTION*

The urban area will increase at the same rate as the projections for the County, with the further assumption that the City will maintain its proportionate share of the county-wide population.

(2) *MEDIUM PROJECTION*

The urban area will continue to grow at the same pace set between 1960 and 1970.

(3) *HIGH PROJECTION*

The urban area will continue to grow at the same

pace set between 1970 and 1972, and will proceed with all tentative housing and building projects.

Figure 11 relates these projections to those previously determined for the County, Region, and State. These projections indicate a continuation of the trend in migration from rural-to-urban communities.

By 1980, the urban area population is projected to increase from the present level of 2,667 in 1970 to over 3,500 (medium). Should the expansion of existing businesses be fully realized together with supporting employment opportunities, and should currently proposed housing developments proceed on schedule, the high range projection of 3,900 persons by 1980 will be attained easily.

FIGURE 11
Kerman Population Projections

YEAR		KERMAN	FRESNO	FRESNO COUNTY	STATE OF CALIFORNIA
1950	ACTUAL	1,563	91,669	276,515	10,586,233
1960	ACTUAL	1,970	133,929	365,945	15,720,860
1970	ACTUAL	2,667	165,990	413,053	19,953,134
1980	LOW	3,600			
	MEDIUM	3,800	199,000	453,900	23,249,000
	HIGH	3,900			
1990	LOW	4,400			
	MEDIUM	4,800	225,000	503,900	27,888,000
	HIGH	5,100			

The need for a low to high range is particularly important in making small area forecasts, and moreover as one extends out into the future or reduces the size of the area being studied to that of Kerman's urban area, a far greater likelihood of error arises. For this reason the projections to 1990 show a far greater spread from the low to high ranges. However, the high projection of 5,100 persons by 1990 is still considered to be

reasonably conservative, representing a sizeable gain in its relative position as a percentage of the county population.

ECONOMIC BASE AND EMPLOYMENT PROJECTIONS

The future growth of the City of Kerman will be influenced by agriculture as its economic base and the service demands placed on the community by this industry. The population which can be supported will depend upon the expansion of employment opportunities, not only in agriculture and related services and industries, but in the diversification of employment offered by industries which can be drawn directly into the community or within commuting distance. The growth of the Fresno Metropolitan Area, as the primary urban and industrial complex in the San Joaquin Valley, will become a more significant economic force in the future and will influence the growth of neighboring communities such as Kerman.

FIGURE 12
KERMAN EMPLOYMENT PROJECTIONS*

	1971	1980	1990
AGRICULTURE	441	374	337
MINING	2	1	1
CONSTRUCTION	13	19	20
MANUFACTURING	14	17	17
TRANSPORTATION	46	54	53
WHOLESALE TRADE	34	45	46
RETAIL TRADE	111	148	151
FIRE	37	43	46
SERVICE	201	342	372
PUBLIC ADMINISTRATION	19	48	51
TOTAL	918	1091	1094

*BASED ON ZIP CODE BOUNDARY

3

POLICIES FOR PLANNING

THE CONCEPT

The Policy Concept can be broadly described as an official expression of objectives which recognize needs, trends and problems, and which indicate the preferred alternative course of action for achieving such objectives. The policies for long-range planning relate to the basic elements of community life--the social, economic, and physical environments. Together with the community development plans and all supporting data, these policies are then set forth in both written and graphic form to become the General Plan for the City of Kerman.

The goals and policies section of a General Plan has primary significance in terms of impact upon the future development of Kerman, the extent to which needs of the community will be met over a span of time, and the quality of life afforded the citizens of the community. Since the General Plan will view the community's needs in terms of time spans--short-range (*1-5 Years*), medium-range (*5-10 Years*), and long-range (*10-20 Years*)--Policies must be carefully analyzed to reflect the current and projected wishes of the citizenry.

When completed and adopted, the Kerman General Plan will reflect what the community wants to do over the next decade and will not necessarily reflect what the community will be able to do during that period. As the community proceeds year by year toward carrying out the plan, some projects and services will necessarily have to be postponed while others are advanced in timing to reflect more specifically the capability, need and interest of the community at any one point in time.

Citizens from all walks of life and governmental organizations worked together to formulate goals for Kerman. The task was to state objectives that would provide the best possible living and working

conditions for the people of one community.

The following is a classification of eleven important areas that were considered in order to establish goals for Kerman:

1. *HOUSING*

CONSIDER GOALS DEALING WITH QUANTITY, QUALITY, TYPE, LOCATION/PROXIMITY AND LIVABILITY OF DWELLING UNITS.

2. *ECONOMIC SUPPORT OF THE INDIVIDUAL*

PROVIDE THROUGH PUBLIC AND/OR PRIVATE MEANS, METHODS OF ECONOMIC SUPPORT. THIS INCLUDES INDIVIDUALS THAT MAY BE EMPLOYED, UNEMPLOYED, UNDEREMPLOYED, UNEMPLOYABLE OR EMPLOYABLE.

3. *ECONOMIC DEVELOPMENT OF KERMAN*

BUILD A STRONG ECONOMIC BASE THAT WILL SATISFY THE COMMUNITY'S ECONOMIC AND SOCIAL NEEDS AS WELL AS PROMOTE AN ATMOSPHERE THAT WILL ENCOURAGE DIVERSIFICATION AND CREATE A STRONG ECONOMIC ENVIRONMENT.

4. *GENERAL ADMINISTRATION*

PROVIDE AN ADMINISTRATIVE STRUCTURE THAT WILL ENABLE KERMAN TO FUNCTION IN AN EFFICIENT MANNER.

5. *PROTECTION, SAFETY AND REGULATION*

PROMOTE AND ENFORCE SAFETY REGULATIONS THAT WILL MINIMIZE ACCIDENTS.

6. *COMMUNITY ENVIRONMENT AND SUPPORT*

CONSERVE AND PROTECT THE COMMUNITIES NATURAL RESOURCES FROM THE VARIOUS TYPES OF POLLUTION: AIR, WATER, NOISE, AND VISUAL.

7. *TRANSPORTATION/COMMUNICATION*

CONSIDER THE MEANS BY WHICH PEOPLE, MATERIALS, AND IDEAS TRAVEL FROM ONE LOCATION TO ANOTHER WITHIN THE COMMUNITY, AND FROM INSIDE TO OUTSIDE THE COMMUNITY.

8. *SOCIAL INVOLVEMENT*

PROMOTE AN ATMOSPHERE THAT WILL ENCOURAGE SOCIAL INVOLVEMENT.

9. *EDUCATION*

PROMOTE EDUCATION FOR THE PURPOSES OF INTELLECTUAL DEVELOP-

MENT, CITIZENSHIP, PERSONAL GROWTH, AND THE DEVELOPMENT OF VOCATIONAL CAPABILITIES.

10. *HEALTH*

ESTABLISH SERVICES AND FACILITIES TO PROVIDE ADEQUATE HEALTH CARE SERVICES TO ALL CITIZENS OF KERMAN.

11. *RECREATION, CULTURE AND OPEN SPACE*

PROVIDE FACILITIES AND PROGRAMS TO FULFILL CITIZEN'S NEEDS.

GOALS FOR THE CITY OF KERMAN

I. *PROVIDE A TOTAL ENVIRONMENT FOR MAXIMUM HUMAN DEVELOPMENT AND DIGNITY.*

THE ABSOLUTELY ESSENTIAL FACTOR IN HUMAN DEVELOPMENT IS THE TOTAL RESPONSE OF MAN TO MAN. KERMAN MUST FOCUS ON THE HUMAN DIMENSION BY BEING CONCERNED WITH PEOPLE AS HUMAN BEINGS. WE MUST PREPARE OUR DEFENSE AGAINST DISCRIMINATION, DENIAL OF CIVIL RIGHTS, POVERTY, UNEMPLOYMENT AND IGNORANCE. AS LONG AS THESE INEQUITIES PERSIST, OUR COMMUNITY WILL BE UNABLE TO REACH ITS ULTIMATE POTENTIAL.

II. *CREATE A SENSE OF IDENTITY, PRIDE AND RESPONSIBILITY IN AND FOR THE CITY OF KERMAN.*

ALL CITIZENS HAVE A MORAL OBLIGATION TO OUR COMMUNITY TO START AND DILIGENTLY PURSUE A PROCESS OF DEVELOPING A CITY WHICH WILL CREATE AN ENVIRONMENT OF THE HIGHEST PHYSICAL, AESTHETIC, CULTURAL AND SOCIAL STANDARDS.

III. *CONCENTRATE ON DEVELOPING THE FULL POTENTIAL OF OUR YOUNG AND OLD PEOPLE, THROUGH A WIDE VARIETY OF PROGRAMS, FACILITIES AND OTHER INCENTIVES.*

WE MUST ENCOURAGE THE ACTIVE PARTICIPATION OF YOUTH AND SENIOR CITIZENS IN ALL COMMUNITY ACTIVITIES. THE PERPETUATION OF A CIVILIZED SOCIETY WILL REST UPON THE

INVOLVEMENT OF YOUTH AS WELL AS SENIOR CITIZENS FOR NO CIVILIZATION CAN SURVIVE WITHOUT THE VISION, ENTHUSIASM AND ACTIVE PARTICIPATION OF ITS YOUNG PEOPLE, COUPLED WITH THE WISDOM AND EXPERIENCE OF THE SENIOR CITIZEN. THE FACILITIES AND PROGRAMS PROVIDED MUST ENABLE YOUNG PEOPLE TO ENJOY THEIR YOUTH, AND AT THE SAME TIME STIMULATE THEIR DEVELOPMENT INTO RESPONSIBLE CITIZENS.

IV. *PRESERVE AND CELEBRATE KERMAN'S MULTI-NATIONAL AND ETHNIC HERITAGES.*

- A. PROMOTE ETHNIC FESTIVALS.
- B. EMPHASIZE THE VARIOUS ASPECTS OF OUR CULTURAL BACKGROUND IN THE DESIGN OF PUBLIC FACILITIES AND PARKS.
- C. ENCOURAGE THE TEACHING OF LANGUAGES AND ETHNIC AND HISTORICAL BACKGROUND IN EDUCATION AT ALL LEVELS.

V. *REQUIRE THE HIGHEST STANDARDS OF QUALITY AND APPEARANCE FOR ALL FUTURE DEVELOPMENT, BOTH PUBLIC AND PRIVATE.*

- A. REQUIRE THAT ANY NEW DEVELOPMENT CONSTITUTE A "NET BENEFIT" TO THE ENTIRE COMMUNITY RATHER THAN PROMPTING GROWTH FOR ITS OWN SAKE. FOR SUCH PURPOSE, CONTRIBUTION TO THE COMMUNITY SHOULD INCLUDE, IN ADDITION TO REALISTIC ECONOMIC CONSIDERATIONS, SOCIAL, CULTURAL AND AESTHETIC FACTORS.
- B. UTILIZE THE FULL POTENTIAL OF THE LAW IN REQUIRING THE DEDICATION AND MAINTENANCE OF OPEN SPACE AND LANDSCAPING IN ALL TYPES OF DEVELOPMENT.
- C. APPLY A STRONG PROGRAM OF ARCHITECTURAL GUIDELINES TO ALL NEW TYPES OF DEVELOPMENT.
- D. REQUIRE UNDERGROUNDING OF ALL UTILITIES.
- E. ADOPT A STRONG SIGN ORDINANCE, WITH REALISTIC PROGRAM FOR THE ELIMINATION OF NON-CONFORMING SIGNS, AND PROVISIONS FOR ENFORCEMENT.
- F. ENCOURAGE THE ACTIVITIES OF NON-PROFIT ORGANIZATIONS FORMED TO PRESERVE AND DEVELOP THE BEAUTY OF THE AREA.

VI. *ENCOURAGE THE ATTRACTION, RETENTION AND EXPANSIONS OF A SUFFICIENT NUMBER AND VARIETY OF INDUSTRIES AND BUSINESSES TO PROVIDE JOBS FOR ALL AS WELL AS A HEALTHY TAX BASE.*

- A. CREATE AND MAINTAIN A BALANCED ECONOMY FOR THE CITY OF KERMAN IN ORDER TO REDUCE THE IMPACT OF SEASONAL UNEMPLOYMENT AND TO MAINTAIN A HEALTHY BUSINESS CLIMATE. THIS INCLUDES THE ENCOURAGEMENT AND PROTECTION OF AGRICULTURE, THROUGH ORDERLY CONTROL OF URBAN DEVELOPMENT.
- B. UTILIZE THE MOST ADVANCED TECHNIQUES FOR PLANNING AND PROTECTING INDUSTRIAL SITES, INCLUDING PUBLIC SUBSIDY WHEN NECESSARY AND PROPER.

- C. WORK CLOSELY WITH EDUCATIONAL, INDUSTRIAL AND BUSINESS INSTITUTIONS IN PROVIDING TRAINING PROGRAMS WHICH MEET THE NEEDS OF ALL CITIZENS AS WELL AS THE NEEDS OF BUSINESS AND INDUSTRY.
- D. UTILIZE ALL AVAILABLE PROGRAMS AND INCENTIVES FOR PROVIDING JOBS FOR PERSONS HANDICAPPED IN ANY MANNER--EDUCATIONALLY, PHYSICALLY, PSYCHOLOGICALLY AND/OR SOCIOLOGICALLY.

VII. *CREATE AND MAINTAIN AN ATTRACTIVE DOWNTOWN AREA AND MAKE IT THE CULTURAL, FINANCIAL, COMMERCIAL AND ENTERTAINMENT CENTER OF KERMAN.*

- A. PLAN AND DEVELOP THE DOWNTOWN AREA SO THAT IT WILL HAVE AN INSPIRING IMAGE AND IDENTITY THAT WILL UNITE THE PEOPLE OF KERMAN AND WILL BECOME THE FOCAL POINT FOR THE SURROUNDING AREA.
- B. ENCOURAGE AESTHETIC VARIETY OF OPEN SPACE AREAS WITH EMPHASIS ON PEDESTRIAN COMFORT AND CONVENIENCE.
- C. ENCOURAGE THE LOCATION OF SPECIALIZED RETAIL ACTIVITIES AND FACILITIES.
- D. CONTINUE THE USE OF PUBLIC AND PRIVATE URBAN RENEWAL TO ASSIST IN ACCOMPLISHING THE FOREGOING OBJECTIVES.

VIII. *REQUIRE ALL PUBLIC AND PRIVATE DEVELOPMENTS TO CONFORM TO AN UPDATED GENERAL PLAN, WITH REALISTIC AND CLEARLY DEFINED PRIORITIES.*

- A. PURSUE A CONTROLLED AND ORDERLY ANNEXATION POLICY WITH THE OBJECTIVES OF (1) PREVENTING UNDUE SCATTERING OF RESIDENTIAL AND COMMERCIAL USES, (2) PROVIDING PUBLIC FACILITIES AND SERVICES ON AN ECONOMICAL BASIS, (3) PRESERVING CONTIGUOUS OPEN SPACE, AND (4) PROTECTING AGRICULTURE.
- B. UTILIZE THE CONSTRUCTION OF PUBLIC CAPITAL IMPROVEMENTS, SUCH AS STREETS AND SEWERS, AS A PLANNING STIMULUS IN ACCOMPLISHING ORDERLY DEVELOPMENT.
- C. UNDERTAKE THROUGH THE CITY COUNCIL AND PLANNING COMMISSION A NEW AND VIGOROUS APPROACH TO CREATE A GREATER PUBLIC AWARENESS AND SYMPATHY FOR PLANNING. THE CITY COUNCIL SHOULD SET AN EXAMPLE OF GOOD PLANNING BY USING KERMAN'S GENERAL PLAN AND ZONING TO CONTROL DEVELOPMENT.

IX. *ESTABLISH AND MAINTAIN A CONSISTENT HOUSING POLICY PROVIDING FOR: DECENT HOUSING OPEN TO ALL PERSONS IN KERMAN AT PRICES AND RENTS WITHIN THEIR MEANS; VIGOROUS PROGRAMS OF INSPECTION, MAINTENANCE AND RENEWAL, WITH ENCOURAGEMENT OF SELF-HELP AND NEIGHBORHOOD ACTION; ORGANIZED AND ADEQUATE RELOCATION OF PERSONS DISPLACED*

BY PUBLIC ACTIVITIES; AND MAXIMUM QUALITY AND VARIETY IN HOUSING TYPES AND PATTERNS.

- A. DEVELOP A MORE COMPLETE PROGRAM FOR MEETING THE HOUSING NEEDS OF LOW-INCOME FAMILIES, USING BOTH PRIVATE INITIATIVE AND PUBLIC PROGRAMS TO THE FULLEST EXTENT POSSIBLE.
 - B. ENCOURAGE THE DEVELOPMENT OF NEIGHBORHOODS AS SOCIAL AND RECREATIONAL UNITS, AND PROMOTE NEIGHBORHOOD ORGANIZATION AND INVOLVEMENT IN THE IMPROVING OF LOCAL SERVICE, FACILITIES, TRANSPORTATION AND LIVING CONDITIONS.
 - C. CONTINUE THE COMMUNITY-WIDE ATTACK ON EXISTING BLIGHT, AND THE PREVENTION OF BLIGHT, USING A BALANCED PROGRAM OF ALL PRIVATE AND PUBLIC RESOURCES AVAILABLE, INCLUDING CODE ENFORCEMENT, NEIGHBORHOOD REHABILITATION AND REDEVELOPMENT.
 - D. REVIEW ALL ORDINANCES WHICH AFFECT DEVELOPMENT, SUBDIVISIONS, ZONING, HOUSING, BUILDING AND THE USE OF STRUCTURES, TO INSURE THAT THEY INCORPORATE THE MOST MODERN AND PROGRESSIVE MEANS OF ACHIEVING THE OTHER OBJECTIVES STATED IN THIS SECTION.
 - E. FURTHER THE COOPERATION WITH NEIGHBORING JURISDICTIONS IN THE GATHERING OF CURRENT DATA AND STATISTICS RELATING TO HOUSING, AND IN THE PREPARATION OF COMPATIBLE LAND USE PATTERNS AND RESIDENTIAL DENSITIES.
- X. *DEVELOP PARK AND RECREATION FACILITIES BASED ON LOCAL NEEDS, PRESERVING AS MANY SITES OF NATURAL AND HISTORIC SIGNIFICANCE AS POSSIBLE.*
- A. UTILIZE ALL POSSIBLE MEANS FOR OPENING AND MAINTAINING CHANNELS OF COMMUNICATION AMONG ALL SEGMENTS AND NEIGHBORHOODS OF THE COMMUNITY, CITY OFFICIALS, AND BUSINESS AND INDUSTRY, TO ENCOURAGE FREE EXPRESSION OF NEEDS, DESIRES, IDEAS, HOPES AND TROUBLES, AND MUTUAL UNDERSTANDING BETWEEN INCOME LEVELS AND ETHNIC GROUPS.
 - B. COORDINATE THE ACTIVITIES OF ALL PUBLIC AND PRIVATE AGENCIES TO IMPROVE SOCIAL SERVICES, ELIMINATE POVERTY AND HELP THE UNDERPRIVILEGED TO HELP THEMSELVES.
 - C. UTILIZE PUBLIC FUNDS TO ADVERTISE REGULARLY IN A NEWSPAPER OF GENERAL CIRCULATION SUCH ITEMS OF GENERAL PUBLIC INTEREST AS (1) ALL VACANCIES IN APPOINTED POSITIONS AND THE METHOD OF FILING FOR THESE POSITIONS, (2) ALL PUBLIC HEARINGS SCHEDULED FOR THE FOLLOWING WEEK, AND (3) A SUMMARY OF ALL CITY COUNCIL AND PLANNING COMMISSION MEETINGS.

- D. PROVIDE COMPREHENSIVE INFORMATION ON ALL ASPECTS OF KERMANS CITY GOVERNMENT AND AN AGGRESSIVE PROGRAM FOR MAKING THIS INFORMATION AVAILABLE TO ALL SEGMENTS OF THE COMMUNITY. THIS SHOULD INCLUDE A COMPLETE INFORMATION CENTER IN CITY HALL, AND THE USE OF BILINGUAL PERSONNEL WHERE POSSIBLE.

XII. SUPPORT EDUCATIONAL INSTITUTIONS AND ACTIVELY DEVELOP CLOSER COORDINATION BETWEEN THEM AND THE CITY OF KERMANS IN PROVIDING QUALITY EDUCATION.

- A. SUPPORT THE PLANNING AND BUILDING OF THE FINEST POSSIBLE EDUCATIONAL SYSTEM, ONE WHICH WILL PROVIDE EQUAL EDUCATIONAL INSTRUCTION, FACILITIES AND OPPORTUNITIES TO ALL. IMMEDIATE ATTENTION MUST BE FOCUSED ON THE NEEDS OF DISADVANTAGED AREAS.
- B. UTILIZE THE OFFICES OF THE CITY TO STIMULATE A CLOSE WORKING RELATIONSHIP BETWEEN EDUCATION AND INDUSTRY, TO PROVIDE SKILLS AND JOBS FOR ALL, AND INSURE THAT ADEQUATE VOCATIONAL AND TECHNICAL TRAINING IS AVAILABLE TO ALL WHO NEED IT.
- C. USE CITY INFORMATION PROGRAMS TO STIMULATE WIDER USE OF THE PROGRAMS OFFERED IN OUR EDUCATIONAL FACILITIES.
- D. MAKE GREATER EFFORTS TO DRAW UPON THE RESOURCES OF EXPERTISE AND KNOWLEDGE IN OUR EDUCATIONAL INSTITUTIONS TO ASSIST IN SOLVING COMMUNITY PROBLEMS.

XIII. PROVIDE PUBLIC SERVICES AND FACILITIES THAT EFFICIENTLY MEET AND ANTICIPATE THE NEEDS OF ALL SEGMENTS OF THE PUBLIC NOT ADEQUATELY PROVIDED FOR BY PRIVATE ENTERPRISE.

- A. INSIST THAT PUBLIC HEALTH AND SOCIAL SERVICES AND FACILITIES ARE OF THE HIGHEST QUALITY AND ARE ACCESSIBLE, AND MEET AND ANTICIPATE THE NEEDS OF THE PUBLIC IN ENVIRONMENTAL, AND MENTAL HEALTH.
- B. EMPHASIZE BOOKS AND SERVICES RATHER THAN FACILITIES IN THE COUNTY LIBRARY SYSTEM.
- C. PROVIDE A CIVIL DEFENSE AND DISASTER PROGRAM EFFECTIVELY COORDINATED WITH THE COUNTY TO ASSURE THAT THE PEOPLE OF THE CITY OF KERMANS WILL HAVE MAXIMUM PROTECTION IN EVENT OF A DISASTER.
- D. PROVIDE SANITARY SEWAGE FACILITIES AND SERVICES THAT MEET AND ANTICIPATE PUBLIC REQUIREMENTS.

- E. MAINTAIN FACILITIES THAT WILL ALLOW RUBBISH AND GARBAGE TO BE COLLECTED AND DISPOSED OF IN A MANNER THAT PROTECTS PUBLIC HEALTH, CONSUMES A MINIMUM AMOUNT OF USEFUL LAND, AND HAS THE LEAST ADVERSE AFFECT ON THE AREA NEAR THE DISPOSAL GROUNDS.

XIV. *STUDY ALL SOURCES OF INCOME TO PROVIDE THE QUALITY OF COMMUNITY SERVICE SOUGHT IN THESE GOALS.*

- A. MAINTAIN A FAIR POLICY OF TAXATION.
- B. MAKE MAXIMUM USE OF ALL TYPES OF AID AND GRANTS WHICH ARE CONSISTENT WITH THESE GOALS.

XV. *ESTABLISH A STRONG, PERMANENT PROGRAM FOR (1) CONTINUED SOLICITATION OF CITIZEN OPINION ON COMMUNITY GOALS, (2) CONSTANT REVIEW AND REVISION OF GOALS TO REFLECT CHANGING CITIZEN CONSENSUS, (3) REALISTIC ANALYSIS OF COST, PRIORITY, AND TIMING, AND, MOST IMPORTANT, (4) IMPLEMENTATION OF GROUP GOALS.*

- A. STRIVE TO UTILIZE AND UP-DATE THESE GOALS AND DIRECT THE APPROPRIATE ADMINISTRATIVE PERSONNEL TO TRANSLATE THEM INTO SPECIFIC PLANS AND PROGRAMS FOR THE CITY OF KERMAN.
- B. THE PLANNING COMISSION SHOULD CONTINUE TO STUDY, EVALUATE, AND MAKE RECOMMENDATIONS ON THE STRUCTURE, WORKINGS, FINANCING AND EFFICIENCY OF THE CITY, AND TO SUGGEST APPROPRIATE INNOVATIONS.

4

THE LAND USE ELEMENT

INTRODUCTION

The Land Use Element is the most basic and important determinant of the General Plan. This Element establishes community policy concerning the location and density of residential, commercial and industrial development for the future.

The Land Use Element begins by explaining the land use survey technique and then describes the existing land uses within the planning area. The generalized existing land use map aids in the basic understanding of the community. Land use calculations for the present City Limits allow the community to see how its properties have been developed. The plan is then broken down into three subsections to enumerate the goals, principles, and standards for the three primary land use categories: residential, commercial, and industrial. The Land Use Element concludes with recommendations for each of the primary land use types.

The General Plan and all its collective elements and recommendations are illustrated in the Medium and Long-Range Plans.

THE LAND USE SURVEY

A detailed land use survey and inventory was conducted by the project director. The actual information was obtained through the process of a *"windshield survey."* The observations were recorded on official Fresno County Assessor's Parcel Maps. The information was then transposed on to large scale base maps for presentation and group discussion.

The enclosed Existing Generalized Land Use Map is a graphic presentation of the arrangement of uses in the planning area. The uses have been keyed to 10 major categories including both urban and rural land use patterns.

The mapping of this information is very important to the general planning process because it allows the citizenry:

1. TO DEVELOP AN UNDERSTANDING OF THE PHYSICAL CHARACTERISTICS OF THE KERMAN AREA;
2. TO RELATE LAND-USE AND SOCIO-ECONOMIC DATA IN ORDER TO PROJECT FUTURE SPACE NEEDS;
3. TO LOCATE AND IDENTIFY LAND USE CONFLICTS AND OPPORTUNITIES AS A MEANS OF FOCUSING PRESENT AND FUTURE DEVELOPMENT ISSUES.

GENERALIZED EXISTING LAND USES

The City of Kerman is relatively compact. The entire community only occupies about one square mile, about one-sixth of the total planning area. The community is generally bounded on the north by Whitesbridge Avenue, the south by California Avenue, the east by Del Norte Avenue, and the west by Vinland Avenue. The existing land use is centered around the intersection of Madera and Kearney Avenues.

Land division within the City of Kerman is typical of most valley towns, with a grid pattern of streets forming square or rectangular blocks generally 400 feet in dimension containing lots with 50-foot frontage and 140 feet depth. Newer residential areas have extended the grid but generally involve wider lots and longer blocks.

The city was originally laid out between First and Ninth Streets; and "A" and "G" Streets. Housing was equally distributed on both sides of Madera Avenue. As the community continued to grow residential activity began to move westward to Del Norte Avenue to complement the Kerman-Floyd Senior Elementary School. Additional housing has developed toward the relatively new Kerman Union High School in the northwest section of the community. During the past year a new subdivision, aided by Federally sponsored loans, has enhanced the southeastern section of the community. Until recently the northeastern section has experienced only limited growth. Kerman's first mobile home park has changed that with its spaces for 106 units.

Commercial establishments have been developed in a linear strip along Madera Avenue, retail shopping to the south and convenient shopping centers at the north. Scattered commercial uses are also located along Whitesbridge Avenue and extend eastward towards Fresno.

Three major circulation systems pass through Kerman. Whitesbridge Avenue is a segment of State Route 180, Madera Avenue is a portion of State Route 145, and the Southern Pacific Railroad.

Industrial development has concentrated along the railroad tracks, fronting on "A" Street (*California Avenue*) and adjoining Madera Avenue. A few industries have located on Whitesbridge Avenue west of Madera Avenue.

In the surrounding agricultural areas, farms are generally 20 to 40 acres in size, but to the south they commonly exceed 80 acres in area.

EXISTING LAND USE CALCULATIONS

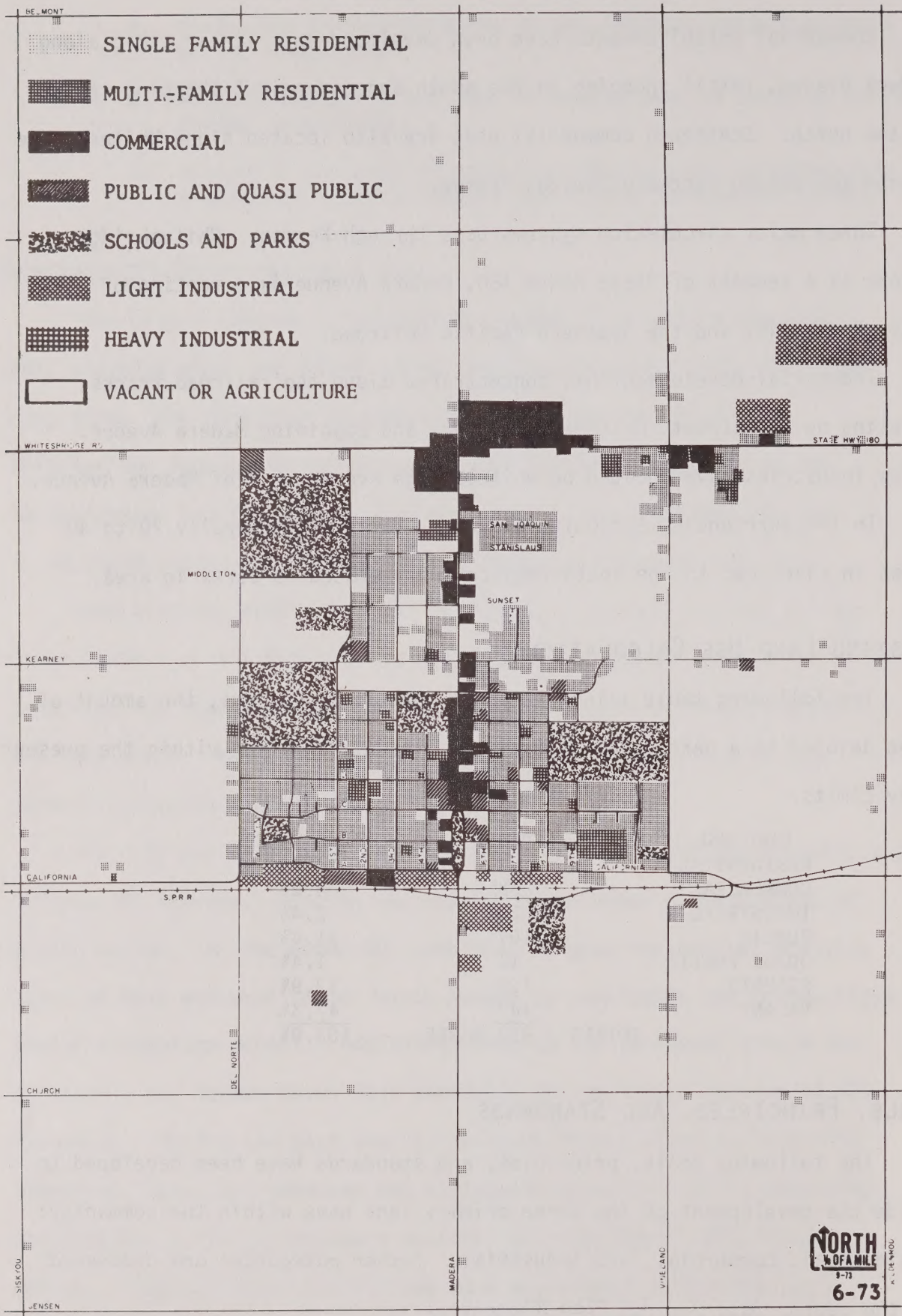
The following table illustrates, in quantitative terms, the amount of area devoted to a particular generalized land use existing within the present City Limits.

LAND USE	ACREAGE	PERCENTAGE
RESIDENTIAL	192	20.4%
COMMERCIAL	38	4.2%
INDUSTRIAL	23	2.4%
PUBLIC	107	11.4%
QUASI PUBLIC	13	1.4%
STREETS	122	12.9%
VACANT	447	47.3%
TOTALS	952 ACRES	100.0%

GOALS, PRINCIPLES, AND STANDARDS

The following goals, principles, and standards have been developed to guide the development of the three primary land uses within the community: residential, commercial, and industrial. (*Other categories are discussed in the appropriate General Plan Elements.*)

EXISTING GENERALIZED LAND USE MAP



RESIDENTIAL USES

GOALS:

TO PROMOTE AN ATTRACTIVE RESIDENTIAL ENVIRONMENT FREE FROM CONFLICTING USES AND NON-RESIDENTIAL TRAFFIC.

TO PROMOTE THE DEVELOPMENT OF A VARIETY OF HOUSING TYPES AND DENSITIES DESIGNED TO MEET THE DIVERSE NEEDS OF RESIDENTS.

TO ENCOURAGE A CONTINUING PROGRAM OF MAINTENANCE OF EXISTING RESIDENTIAL NEIGHBORHOODS AND THEIR REDEVELOPMENT THROUGH PRIVATE, INDIVIDUAL ACTION.

PRINCIPLES:

RESIDENTIAL DENSITIES SHOULD BE ESTABLISHED WHICH ARE CONSISTENT WITH EXISTING AND PROJECTED PUBLIC SERVICES AND WHICH RECOGNIZE ESTABLISHED DENSITIES.

COOPERATION AND ACTION BY RESIDENTS IN PROVIDING AN ATTRACTIVE AND WELL MAINTAINED PLACE TO LIVE IS ESSENTIAL TO THE REALIZATION OF ANY PLAN FOR SOUND RESIDENTIAL DEVELOPMENT.

GROWTH SHOULD OCCUR IN AN ORDERLY FASHION.

STANDARDS:

RURAL DENSITY - THIS CATEGORY REPRESENTS THE MAJORITY OF DWELLING UNITS THAT ARE LOCATED IN RURAL AGRICULTURAL AREAS OUTSIDE THE CITY LIMITS. THESE UNITS ARE DISPERSED OVER A GREATER LAND AREA, ONE UNIT ON ONE OR MORE ACRES.

LOW DENSITY - RANGING FROM RURAL DENSITY ACREAGE PARCELS UP TO APPROXIMATELY FIVE DWELLING UNITS PER NET ACRE OF LAND. THE MAJORITY OF THE DEVELOPMENTS IN THIS CATEGORY WILL BE OF CONVENTIONAL SINGLE-FAMILY RESIDENCES ON 6,000 to 10,000-FOOT LOTS.

MEDIUM DENSITY - INCLUDING ALL RESIDENTIAL AREAS AVERAGING MORE THAN FIVE UNITS PER NET ACRE OF LAND. THIS WOULD INCLUDE DUPLEXES, TRIPLEXES, FOURPLEXES, APARTMENTS, ROW HOUSING AND OTHER TYPES OF MULTI-FAMILY HOUSING, AND ALSO WOULD ENCOMPASS OLDER HOMES ON SMALL LOTS AND SITUATIONS INVOLVING TWO OR MORE SEPARATE HOUSING UNITS ON ONE LOT.

It should be noted that the General Plan Diagram indicates average densities, and does not imply that each developed parcel or group of parcels shall adhere to the exact density shown. As conditions warrant, some variation in density within the areas shown may be expected.

PLAN RECOMMENDATIONS:

As residential development is the major user of a community's land, residential growth patterns will be the prime determinant of the shape of urban growth during the next two decades. Therefore, the adoption of a compact pattern of residential expansion, as shown on the plan, will be important in realizing expressed community goals.

The residential land use needs for the community's Medium and Long-Range Plan are based on the present number of dwelling units divided by the total net acreage devoted to all types of residential use. The computation yields approximately 4.5 units per acre. The Housing Element has projected 450 new and replacement units to be built between the years 1970 and 1980. This would tend to indicate that the Medium Range General Plan should set aside a minimum of 100 acres of residential land use, exclusive of streets and alleys. Actually the plan indicates a larger amount of acreage to allow for freedom of development choice. Utilizing this same criteria the Long-Range Plan, to the year 1990, illustrates an additional 80 to 100 acres to accommodate the projected 400 dwelling units to be built between 1980 and 1990. The Plans illustrate the three primary density ranges for a rural community *(as defined by the standards of this Element)*.

COMMERCIAL USES

GOALS:

TO DEVELOP A COMMERCIAL DISTRICT COMPOSED OF COMPLEMENTARY BUSINESSES DESIGNED TO SERVE LOCAL RESIDENTS AND MOTORISTS.

TO PROMOTE THE DEVELOPMENT OF COMMERCIAL USES PROVIDING A CHOICE AND RANGE OF CONVENIENCE GOODS AND SERVICES ADEQUATE TO MEET THE DEMANDS OF LOCAL RESIDENTS.

TO ENCOURAGE THE ADOPTION OF A COMMON MODE OF DEVELOPMENT WHICH WILL ENHANCE THE COMMUNITY.

TO ASSIST IN MAINTAINING AN EVER-GROWING, PROSPEROUS, CENTRAL SHOPPING AREA.

TO DIFFERENTIATE RETAIL SHOPPING AREAS FROM SERVICE AREAS IN ORDER TO PROMOTE THE DEVELOPMENT OF COMPACT, EFFICIENT USE AREAS FREE FROM THE CONFLICTING DEMANDS MADE BY THEIR USERS.

PRINCIPLES:

SHOPPING AREAS SHOULD BE AESTHETICALLY PLEASING, WELL LIGHTED AND ADEQUATELY PATROLLED TO PREVENT VANDALISM AND ATTACK ON USERS.

BUSINESS SHOULD BE ENCOURAGED TO PROVIDE SUITABLE OFF-STREET PARKING FOR THEIR CUSTOMERS.

COMPACT, UNIFIED SHOPPING AND SERVICE AREAS ARE MORE CONVENIENT TO USERS AND GENERALLY HAVE A GREATER INCOME POTENTIAL THAN LOOSELY ARRANGED BUSINESS AREAS.

STANDARDS:

A FIGURE OF ONE ACRE PER ONE THOUSAND PERSONS IN THE "MARKET AREA" OFFERS A ROUGH MEASURE OF THE AREA REQUIRED FOR RETAIL COMMERCIAL USES IN A COMMUNITY.

PARKING SHOULD BE PROVIDED IN A MANNER CONSISTENT WITH THE REQUIREMENTS SET FORTH IN THE CITY'S ZONING ORDINANCES.

COMMERCIAL AREAS ADJACENT TO RESIDENTIAL USES SHOULD BE DEVELOPED WITH ADEQUATE SCREENING OR SPECIAL DESIGN TREATMENT TO PREVENT CONFLICTS.

PLAN RECOMMENDATIONS:

With the community's current population estimated to be around 3,100 people, Kerman's 38 acres of commercial land yields over one acre per 100 residents. This picture is not entirely accurate for a community acting as a rural service center. The economic sphere of commercial influence extends in all directions to encompass a larger population base. (The Fresno County Local Agency Formation Commission (LAFCO) will be conducting a sphere of influence study during the fiscal year 1973-74. The study will include an analysis of the service area population and its extent. Standards for commercial acreage are highly speculative and

depend a great deal on intensity of use within the land available. Many of Kerman's existing businesses suffer from low sales volume per square foot. It would appear that concentration and higher utilization of existing commercial areas is preferable to proliferation of commercial acreage.

Commercial activity in the Kerman area will continue to be mainly oriented to the servicing of the needs of the local population. Regional shopping will probably continue to take place in Fresno bolstered by larger populations and easy access from surrounding cities and rural areas.

The Medium and Long-Range Plans indicate that commercial uses will continue to dominate Madera and Whitesbridge Avenues. Three types of commercial land use are shown on the plans. Central commercial uses include the traditional retail stores, offices and businesses. Service commercial uses include auto-oriented establishments, building materials and agricultural equipment sales, and services oriented to local industry. Highway commercial, as the name implies, will be oriented primarily to the commuter and long-distance traveler. A relatively large amount of land is shown in commercial use, due to an expected growth in this activity and to the typically larger parcel sizes involved.

INDUSTRIAL USES

GOALS:

TO FACILITATE THE EFFORTS TOWARD ECONOMIC DIVERSIFICATION OF THE COMMUNITY BY SETTING ASIDE SUITABLE AREAS FOR NEW INDUSTRY TO LOCATE IN KERMAN.

TO MINIMIZE THE POTENTIAL FOR LAND USE CONFLICTS BETWEEN INDUSTRIAL USES AND ANY OTHER USES IN THE COMMUNITY.

TO PROVIDE SITES SUITABLE FOR INDUSTRY AT THE LOWEST COST TO THE COMMUNITY IN TERMS OF PROVIDING PUBLIC IMPROVEMENTS, SUCH AS SEWER AND WATER SERVICES.

PRINCIPLES:

INDUSTRIAL AREAS SHOULD HAVE THE FOLLOWING CHARACTERISTICS:

- (a) BE ACCESSIBLE TO MAJOR THOROUGHFARES AND RAILROADS WITHOUT REQUIRING MOVEMENT OF HEAVY VEHICULAR TRAFFIC THROUGH RESIDENTIAL AREAS.
- (b) HAVE LAND CHARACTERISTICS GENERALLY FAVORABLE TO INDUSTRIAL DEVELOPMENT IN TERMS OF SLOPE, DRAINAGE, AND SOIL BEARING CAPACITY.
- (c) HAVE ADEQUATE SEWER AND WATER FACILITIES.
- (d) INDUSTRIAL USES WHICH ADJOIN RESIDENTIAL AREAS AND OTHER AREAS OF LOWER INTENSITY USES WHICH REQUIRE FREEDOM FROM NOISE, VIBRATION, SMOKE, DUST, ODOR, AND OTHER ADVERSE INFLUENCES, SHOULD BE REQUIRED TO PROTECT THOSE ADJOINING PROPERTIES THROUGH THE USE OF SPACE AND LANDSCAPED BUFFER STRIPS, THROUGH CONTROL OF INDUSTRIAL PROCESSES, AND BY OTHER APPROPRIATE MEANS.

STANDARDS:

LAND USE STANDARDS VARY WIDELY WITH THE TYPE OF INDUSTRIAL USE. MOST INDUSTRIES HAVE FEWER THAN THIRTY EMPLOYEES PER ACRE AND AN AVERAGE FIGURE OF TEN EMPLOYEES PER SITE ACRE MIGHT BE EXPECTED EXCEPT IN HIGHLY MECHANIZED OPERATIONS.

PLAN RECOMMENDATIONS:

It is difficult to project the actual demand for industrial land in Kerman. However, it is clearly to Kerman's advantage to attract as much industrial expansion, consistent with protecting its environment, as possible. Such industries bring new, and usually higher paying, employment opportunities to the residents, as well as increase the tax base of the community.

Kerman could become a bedroom community, with the major shopping and employment centers developing in the Fresno and Madera Areas rather than locally, but the projections for both commercial and industrial land use are based on the assumption that this possibility will be successfully avoided.

Considerable land has been designated on the Medium and Long-Range

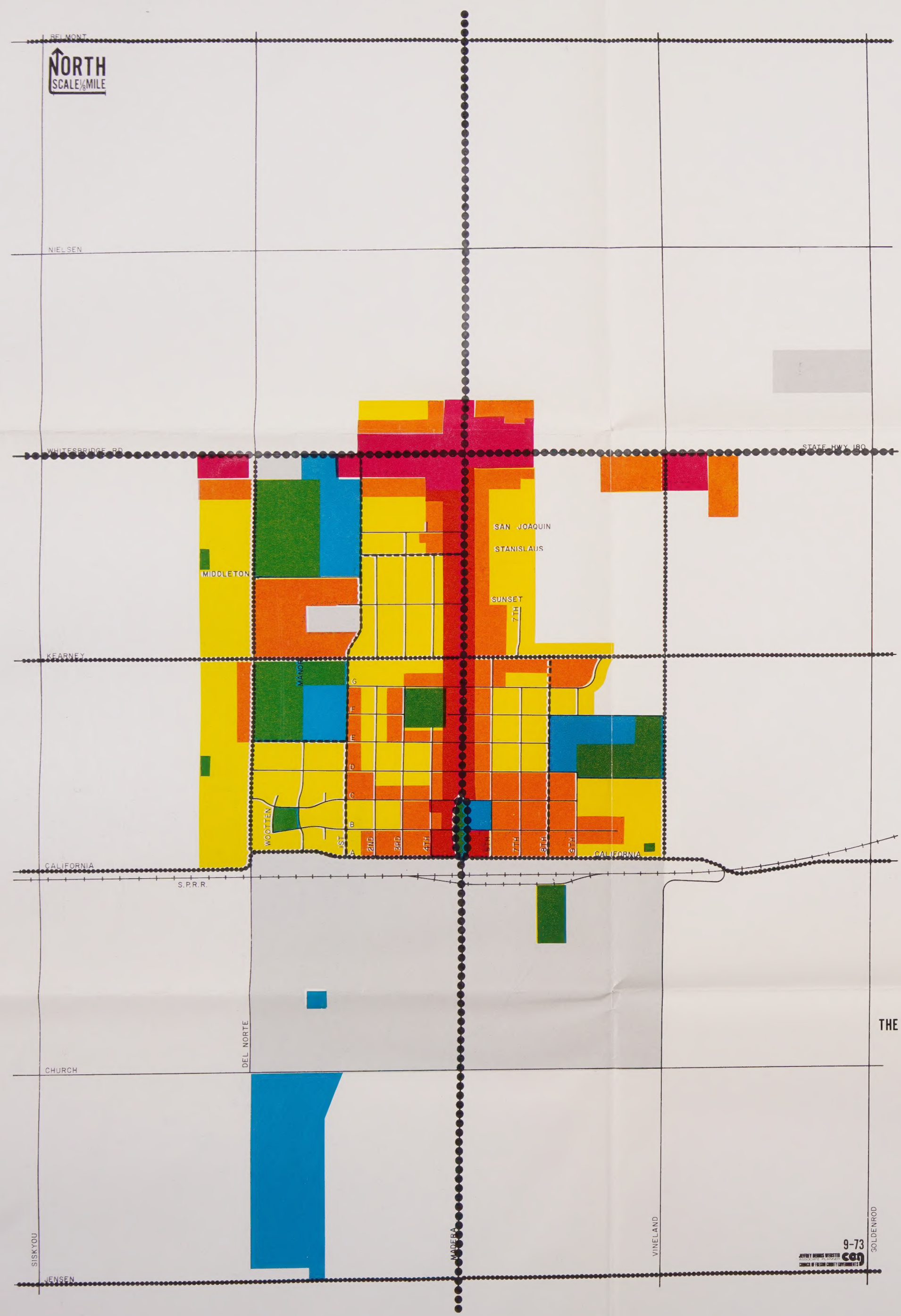
Plans for potential industrial use. It is unlikely that all of this land will be fully developed, but it is desirable to encourage new industry to locate in Kerman by offering a choice and abundance of land available.

The Medium and Long-Range Plans clearly indicate that industrial development should occur south of "A" Street (California Avenue) adjacent to the railroad tracks and Madera Avenue.

MEDIUM AND LONG-RANGE GENERAL PLAN MAPS

In interpreting proposals shown on the following plan diagrams, it must be emphasized that reference to the descriptive analyses, policies and proposals contained in the text is necessary to gain a complete understanding of the General Plan.

GENERAL PLAN FOR THE CITY OF KERMAN, CALIF.



1980 MEDIUM RANGE PLAN
POPULATION 3,800



1990 LONG RANGE PLAN
POPULATION 4,800

5

THE CIRCULATION ELEMENT

INTRODUCTION

The Circulation Element of the General Plan designates the pattern of arterial, collector and local streets throughout the community and provides standards for their development.

EXISTING CONDITIONS

Kerman was originally designed as a unit intended to provide space and access for all uses which might locate there. The grid-like street pattern provides ease of access to and from all points, making it an extremely flexible system.

The half mile grid of county roads and state highways provide the city's primary and secondary street network. Whitesbridge (State Route 180), Kearney and California Avenues are the major east-west traffic carriers at the north, center, and south edge of the urban area, respectively. Church and Jensen Avenues serve the agricultural and industrial area to the south while Nielsen and Belmont Avenues traverse the farm lands north of town. In the north-south direction at half mile intervals are Siskiyou, Del Norte, Madera (State Route 145), Vinland and Goldenrod Avenues progressing from west to east. Del Norte and Vinland Avenues form the western and eastern limits of present urbanization, generally, with Madera Avenue functioning as the City's primary access to the commercial area. The railroad, located along the California Avenue alignment, supplements the street network providing an important transportation facility for shipment of agricultural products.

City wide traffic count surveys were not conducted for the City of Kerman. It is felt that the traffic patterns are easily recognized and that with its present size such counts are not justified. Traffic

count information obtained from the State Division of Highways and the Fresno County Department of Public Works for areas outside the immediate jurisdiction of the City but within the sphere of influence indicate that a major portion of the traffic travels through the City. Internal circulation problems are practically non-existent. All local streets are never more than a quarter-mile away from a major carrier.

Street right-of-ways 60 feet in width are adequate throughout the residential areas. Madera Avenue (Route 145) is 100 feet in width.

TRANSPORTATION NEEDS OF SPECIAL GROUPS

Many towns and cities, in striving to meet the special and often pressing needs of the motorist, tend to forget about the sizeable portion of the population who do not drive or own automobiles. The young, the old, the poor and the handicapped have special transportation needs that can be, and often are, overlooked.

Transportation difficulties of these sizeable groups pose special problems for public policy. They frustrate the attainment of legitimate aims and aspirations to take advantage of employment; health service; educational, cultural and recreational opportunities; and they frustrate efforts of local government to provide certain services to which all people of the community should have equal access.

In planning within the City and the surrounding areas, consideration must be given to pedestrian, bike, motorbike, and truck movement on an equal basis with private auto movement. It may be found that alternative transportation systems can be provided for at surprisingly little cost, and at great benefit to the overall community.

GOALS, PRINCIPLES, AND STANDARDS

The following goals, principles and standards have guided the development of the Circulation Element.

GOALS:

- * To develop a system which will protect the safety of users and residents.
- * To develop a system which will be as convenient for all users as feasible when balanced against the safety factor.

PRINCIPLES:

- * Circulation facilities should form an integrated system that provides appropriate facilities for the movement of people and goods.
- * Industrial traffic should be excluded from residential collector and local streets.
- * Collector and local streets should be designed so as to discourage their use by through traffic.

STANDARDS:

* *Expressways:*

These are an intermediate type having access to private property prohibited or severely limited, but with intersections at grade. Some highways are initially constructed as expressways, then later converted to full freeways by construction grade separations and interchanges.

* *Arterial:*

A street for through traffic on a continuous route joining collectors, major traffic generators, and other arterials; access should be limited, preferably to quarter-mile intervals.

* *Collector:*

A street which serves the internal traffic movement within an area and connects with the arterial system. A collector should not handle long, through trips and should not be continuous for a great length.

* *Local Street:*

A street for access to residences, businesses or other abutting property. Local streets should not be used for through traffic.

PLAN RECOMMENDATION

The following streets are designated by the Circulation Element as:

Expressways -

- * Madera Avenue (State Route 145)
- * Whitesbridge Avenue (State Route 180)

Arterials -

- * Belmont Avenue
- * Kearney Avenue
- * California Avenue
- * Jensen Avenue
- * Del Norte Avenue (south of Whitesbridge Avenue)
- * Vinland Avenue (south of Whitesbridge Avenue)

Collectors -

- * Stanislaus Avenue (between First Street and Vinland Avenue)
- * Middleton Avenue (between Del Norte Avenue and First Street)
- * "E" Street (between Del Norte Avenue and Madera Avenue)
- * Eighth Street (between California Avenue and Kearney Avenue)
- * First Street (between Whitesbridge Road and California Avenue)

Locals -

- * All other streets within the City Limits of Kerman

It is further recommended that the City of Kerman designate truck routes for truck traffic other than that required to make local deliveries. Those streets upon which trucks should be encouraged to use are:

- * Belmont Avenue
- * Whitesbridge Avenue (State Route 180)
- * Madera Avenue (State Route 145)
- * California Avenue (Del Norte Avenue to Vinland Avenue)

THE FUTURE ALIGNMENT OF STATE ROUTE 180 AND 145

The City of Kerman has gone on record supporting an alignment of State Highway 180 to the south of the existing urban area. There are three simple reasons:

1. The General Plan contemplates residential development in a general northerly direction. It is believed that if Highway 180 were allowed to bypass Kerman on the north, residential development would be impaired and discouraged.
2. The General Plan also contemplates industrial development in a general southerly direction. It is believed that if Highway 180 were allowed to bypass Kerman on the south this would enhance and encourage industrial development. It is also believed that the highway should parallel the existing alignment of the Southern Pacific Railroad tracks.
3. It is known that the prevailing winds blow from the north-west of the City of Kerman. A Highway 180 bypass north of the City will cause noise, dirt, pollution and nuisance to the environment.

In the case of the realignment of State Highway 145 the City favors an alignment to the east of the community.

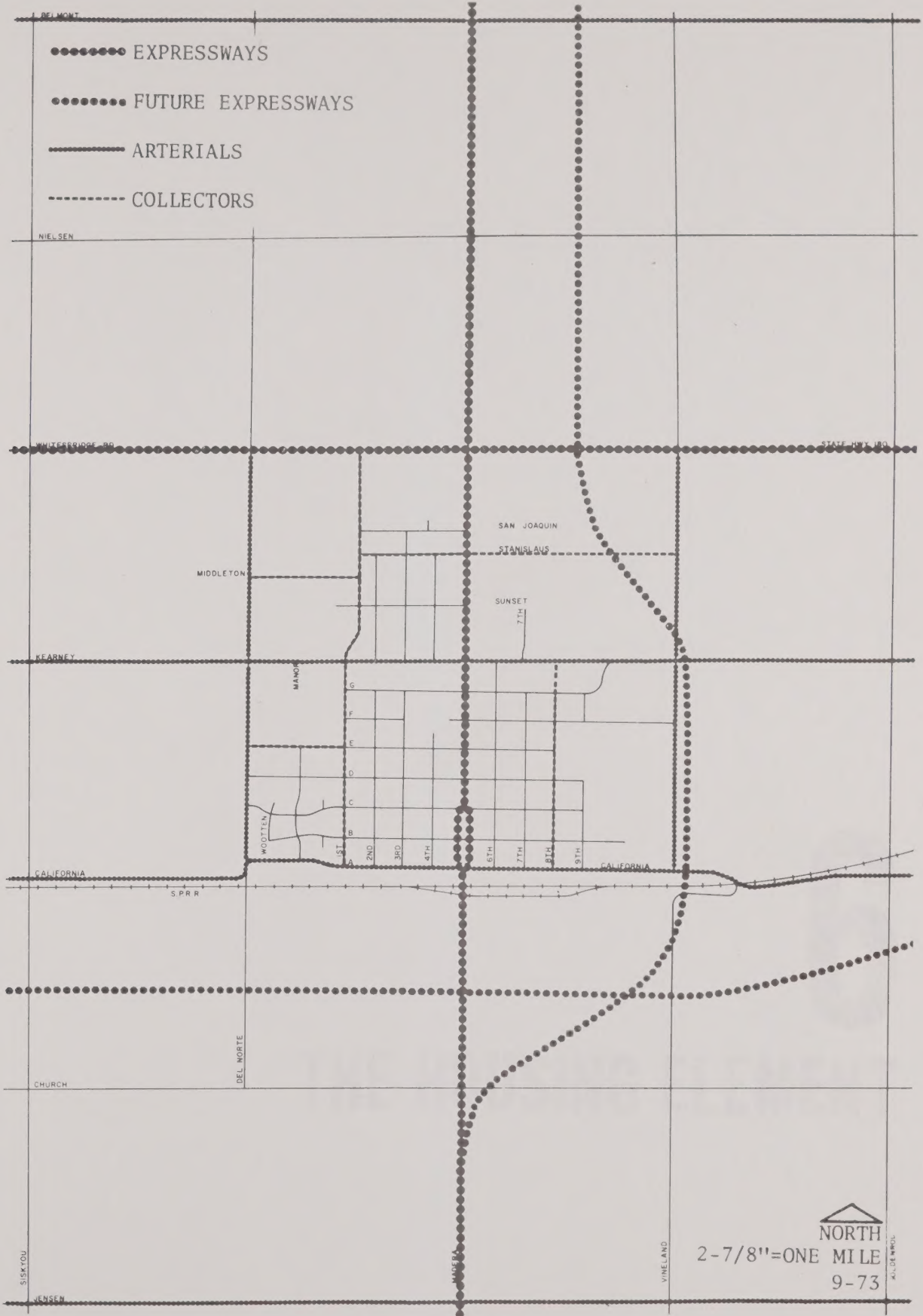
It is not known at this time just when these projects might be undertaken, but it should be noted the State Division of Highways will be responsible for providing a Comprehensive Environmental Impact Report for both projects. They will also be responsible for satisfying noise level standards set forth by the Noise Element. Public hearings will be held to permit review of the project plans, reports and impacts on the community before the projects are approved.

IMPLEMENTATION

Implementation of the Circulation Element should be accomplished through action by the City of Kerman, County of Fresno, and the State Division of Highways to improve streets on a regular, staged basis. Each

year or two, capital improvement funds should be budgeted for specific segments of streets to be improved with drainage facilities and permanent paving. A list of segments in order of their priority should be developed by the City Manager and City Engineer in coordination with all those concerned.

CIRCULATION MAP



6

THE HOUSING ELEMENT

INTRODUCTION

A Housing Element is required as part of an adopted General Plan by both the State of California and the Federal Government. The intent of this legislation is to improve and provide adequate housing for *"all economic segments of the community."* The requirement of a housing element is justified, as the possession of adequate and decent shelter is a basic necessity and right of every individual; as such, housing is a matter with which every jurisdiction must be concerned.

Housing in general is a complex industry involving many factors including supply and demand, labor and material costs, real estate values, financing, and tax structures to name only a few. Most of these factors affecting housing are not within the realm of control by an individual city. Therefore, a regional approach to housing problems and their solution is the most realistic from the standpoint of Kerman's consideration of the total market area and implementation affecting housing programs.

The Council of Fresno County Governments has been concerned with housing and has contracted with the Center of Urban and Regional Studies at California State University, Fresno to do several studies. The first report was entitled *"INITIAL HOUSING ELEMENT FOR THE COUNCIL OF FRESNO COUNTY GOVERNMENTS."* The report is intended to serve as a preliminary analysis for the Council of Fresno County Governments housing study and work program by:

- (1) IDENTIFYING HOUSING PROBLEMS;
- (2) IDENTIFYING OBSTACLES PREVENTING THE RESOLUTION OF THE PROBLEMS;
- (3) STARTING LOCAL HOUSING OBJECTIVES;
- (4) ESTABLISHING AN OVERALL STUDY DESIGN AND WORK PROGRAM FOR ADDITIONAL REPORTS;
- (5) INDICATING THE IMMEDIATE STEPS REQUIRED TO BEGIN PLAN IMPLEMENTATION.

The second series of studies yielded five separate reports:

(1) "HOUSING IMPACT STUDIES: AGRICULTURAL MECHANIZATION URBAN UNIFICATION"

PART 1 OF THIS REPORT IS AN ANALYSIS OF THE IMPACT OF AGRICULTURAL MECHANIZATION ON HOUSING DEMANDS IN FRESNO COUNTY. THE REPORT DISCUSSES THE IMPLICATIONS OF APPARENT TRENDS TOWARD ELIMINATION OF HAND LABOR. NUMBERS OF WORKERS ARE EXPECTED TO DECLINE WHILE WAGES INCREASE SOMEWHAT. MECHANIZATION SHOULD LARGELY, BUT NOT ENTIRELY ELIMINATE THE NEED FOR MIGRANT WORKERS AND THE QUESTION OF WHERE THESE PEOPLE WILL "SETTLE-OUT" IS DISCUSSED. THE REPORT SUGGESTS THAT THE FUTURE WILL SEE THE CREATION OF TWO LABOR MARKETS, ONE SKILLED AND ABLE TO BETTER PROVIDE FOR HOUSING NEEDS, THE OTHER NOT.

PART 2 REVIEWS THE MEANS FOR DETERMINING JURISDICTIONAL BOUNDARIES AND THE PROBLEMS AND ADVANTAGES IN THE VARIOUS METHODS. IT ANALYZES THE CALIFORNIA ANNEXATION LAWS AND REVIEWS THE POSITION OF THE LOCAL AGENCY FORMATION COMMISSIONS. THE STUDY THEN ANALYZES RECOMMENDATIONS FOR REFORM OF PROCEDURES SUGGESTED BY VARIOUS SOURCES AND RECOMMENDS STRONG ACTION BY MUNICIPALITIES AND THE COUNCIL OF FRESNO COUNTY GOVERNMENTS TO ESTABLISH WORKABLE SPHERES OF INFLUENCE FOR CITIES AND TO LOBBY FOR ANNEXATION LAWS MORE FAVORABLE TO THE CITIES.

(2) "HOUSING PROJECTION MODEL"

THIS REPORT IS BASICALLY CONCEPTUAL IN NATURE. IT PROVIDES AN ANALYSIS OF THE PRIMARY ISSUES AND PROBLEMS ENCOUNTERED IN DEVELOPING HOUSING MARKET FORECASTS, GUIDELINES ON FORMULATING FORECASTS OF FUTURE MARKET CONDITIONS, AND AN UNDERSTANDING OF THE ISSUES, METHODS AND PROBLEMS INVOLVED IN PREPARING FORECASTS. THE EMPHASIS OF THIS REPORT IS ON THE MARKET FOR NEW RESIDENTIAL UNITS AS OPPOSED TO PRICE, TURNOVER, AND OTHER CONDITIONS IN THE MARKET FOR EXISTING UNITS. THE RECOMMENDED MODEL TO BE EMPLOYED IS *The number of new housing units = increase in households + increase in vacant units + net removals from the housing stock where the increase in households itself is equal to the increase in population divided by the number of persons per additional occupied housing unit.* DATA SOURCES TO MAKE THE MODEL OPERATIONAL ARE SUGGESTED.

(3) "POPULATION AND HOUSING CHARACTERISTICS"

THIS REPORT IS ORGANIZED INTO THREE PRINCIPAL PARTS:

1. A COUNTY-WIDE OVERVIEW OF POPULATION AND HOUSING DATA FOR FRESNO COUNTY;
2. ANALYSIS OF HOUSING QUALITY, ACCESS TO HOUSING, AND MOBILITY INDICATIONS BY CENSUS TRACT AND PLANNING AREAS;
3. ANALYSIS OF HOUSING QUALITY INDICATORS FOR EACH OF THE INCORPORATED CITIES OF FRESNO COUNTY EXCEPT FRESNO.

THE REPORT DESCRIBES CHANGES IN FRESNO COUNTIES POPULATION AND HOUSING SYSTEM BETWEEN 1960 AND 1970. IT DEVELOPS AND APPLIES A HOUSING QUALITY, ACCESS TO HOUSING AND MOBILITY SCORING SYSTEM

UTILIZING PUBLISHED 1970 CENSUS DATA, APPLIES IT TO CENSUS TRACTS IN FRESNO COUNTY AND ANALYZES THE RESULTS. A SIMILAR SCORING SYSTEM FOR ENUMERATION DISTRICTS IS DEVELOPED FOR INCORPORATED COMMUNITIES OF THE COUNTY UTILIZING DATA FROM THE FIRST COUNT TAPE. THE SCORING SYSTEM RESULTS IN THE IDENTIFICATION OF AREAS WITH SEVERE HOUSING PROBLEMS.

(4) "SUMMARY REPORT, 1972 AREAWIDE HOUSING SEMINAR"

IN MAY 1972, THE COUNCIL OF FRESNO COUNTY GOVERNMENTS, URBAN COALITION, CENTER FOR URBAN AND REGIONAL STUDIES AT THE CALIFORNIA STATE UNIVERSITY AT FRESNO, AND THE HOUSING ADVISORY FINANCE AND APPEALS BOARD OF THE CITY OF FRESNO, COSPONSORED AN AREAWIDE HOUSING SEMINAR. THIS REPORT IS A SUMMARY REPORT OF THOSE PROCEEDINGS WHICH DISCUSSED THREE MAIN TOPICS:

1. AREAWIDE HOUSING ADVISORY COMMITTEE
2. LAND BANK
3. HOUSING LOCATION CRITERIA

THE SUMMARY REPORT IS AN ANALYSIS OF THE HOUSING SEMINAR PROCEEDINGS IN AN ATTEMPT TO IDENTIFY AREAS OF CONSENSUS IN COMMENTARY, HOW THAT COMMENTARY MIGHT BE REFLECTED IN POLICY REGARDING THE TOPIC AREA, AND TO SUGGEST HOW THE POLICY MIGHT BE IMPLEMENTED.

(5) "DESCRIPTION OF OPERATIONAL DATA BANK"

THIS REPORT DESCRIBES THE DATA BANK UTILIZED IN DEVELOPING THE HOUSING ELEMENT AS WELL AS THE OPERATIONAL CAPABILITY. DURING THE PROJECT SYMAP AND GRIDS PROGRAMS (*computer mapping*) WERE MADE OPERATIONAL AND NUMBERS OF DATA RETRIEVAL AND MANIPULATION PROGRAMS WRITTEN. THE FIRST, SECOND, THIRD, AND FOURTH COUNT CENSUS TAPES FOR ALL SAN JOAQUIN VALLEY COUNTIES HAVE BEEN ACQUIRED AND DATA SUCESSFULLY EXTRACTED.

The City of Kerman looks to the Council of Fresno County Governments as the proper and logical source to provide areawide guidelines for housing programs. The City realizes the working framework can provide a common basis for intergovernmental coordination and areawide planning, and as a means of receiving technical assistance.

BASIC QUESTIONS

Four important questions must be answered and kept in mind when reviewing the physical characteristics of housing.

1. WHERE DOES THE INFORMATION COME FROM?
2. WHAT AREA DOES THE INFORMATION REPRESENT?
3. WHEN WAS THE INFORMATION OBTAINED?
4. WHAT IS THE DEFINITION OF "CONDITION OF HOUSING"?

The first three questions will be carefully answered each time the information and data is used. In answering question number four basically, definitions concerning the condition of structures are defined by the 1960 Census of Housing as follows:

SOUND HOUSING IS DEFINED AS THAT WHICH HAS NO DEFECTS OR ONLY SLIGHT DEFECTS WHICH ARE NORMALLY CORRECTED DURING THE COURSE OF REGULAR MAINTENANCE. EXAMPLES OF SLIGHT DEFECTS ARE LACK OF PAINT; SLIGHT DAMAGE TO PORCH OR STEPS; SLIGHT WEARING AWAY OF MORTAR BETWEEN BRICKS OR OTHER MASONRY; SMALL CRACKS IN WALLS, PLASTER, OR CHIMNEY; CRACKED WINDOWS; SLIGHT WEAR ON FLOORS, DOOR SILLS, DOOR FRAMES, WINDOW SILLS, OR WINDOW FRAMES; AND BROKEN GUTTER OR DOWN SPOUTS.

DETERIORATING HOUSING NEEDS MORE REPAIR THAN WOULD BE PROVIDED IN THE COURSE OF REGULAR MAINTENANCE. SUCH HOUSING HAS ONE OR MORE DEFECTS OF INTERMEDIATE NATURE THAT MUST BE CORRECTED IF THE UNIT IS TO CONTINUE TO PROVIDE SAFE AND ADEQUATE SHELTER. EXAMPLES OF INTERMEDIATE DEFECTS ARE: HOLES; OPEN CRACKS; ROTTEN, LOOSE OR MISSING MATERIALS OVER A SMALL AREA OF THE FOUNDATION, WALLS, ROOF, FLOORS OR CEILING; SHAKY OR UNSAFE PORCH STEPS OR RAILINGS; BROKEN OR MISSING WINDOW PANES; ROTTEN OR LOOSE WINDOW FRAMES OR SASHES THAT ARE NO LONGER RAIN-PROOF OR WIND-PROOF; BROKEN OR LOOSE STAIR TREADS OR LOOSE OR MISSING RISERS, BANISTERS OR RAILINGS OF INSIDE OR OUTSIDE STAIRS; DEEP WEAR ON THE DOOR SILLS, DOOR FRAMES, OUTSIDE OR INSIDE STEPS OR FLOORS; MISSING BRICK OR CRACKS IN THE CHIMNEY WHICH ARE NOT SERIOUS ENOUGH TO BE A FIRE HAZARD; AND MAKESHIFT CHIMNEYS SUCH AS A STOVE PIPE OR OTHER UNINSULATED PIPE LEADING DIRECTLY FROM THE STOVE TO THE OUTSIDE THROUGH A HOLE IN THE ROOF, WALL OR WINDOW, SUCH DEFECTS ARE SIGNS OF NEGLECT WHICH LEAD TO SERIOUS STRUCTURAL DETERIORATION OR DAMAGE IF NOT CORRECTED.

DILAPIDATED HOUSING DOES NOT PROVIDE SAFE AND ADEQUATE SHELTER AND ITS PRESENT CONDITION ENDANGERS THE HEALTH, SAFETY AND WELL-BEING OF THE OCCUPANTS. SUCH HOUSING HAS ONE OR MORE CRITICAL DEFECTS, OR HAS A COMBINATION OF INTERMEDIATE DEFECTS OF SUFFICIENT NUMBER OR EXTENT TO REQUIRE CONSIDERABLE REPAIR OR REBUILDING; OR, IF IT IS OF INADEQUATE ORIGINAL CONSTRUCTION, THE DEFECTS ARE EITHER SO CRITICAL OR SO WIDESPREAD THAT THE STRUCTURE SHOULD BE EXTENSIVELY REPAIRED, REBUILT, OR TORN DOWN.

Another term used in the report concerning housing condition is "*substandard*." This term is meant to apply generally to all housing which is in either a deteriorating or dilapidated condition.

MAJOR PROBLEMS

There are many major housing problems within Fresno County, several of which relate to the problems facing Kerman:

1. A GENERAL SHORTAGE OF HOUSING EXISTS.
2. HOUSING COSTS FOR BOTH NEW AND USED UNITS, ALREADY HIGH, ARE RISING BEYOND THE REACH OF AN INCREASING PROPORTION OF THE COUNTY'S RESIDENTS.
3. CHOICE OF HOUSING BY TYPE, PRICE, AND LOCATION IS NARROWING FOR MOST OF THE COUNTY'S RESIDENTS.
4. FAMILIES AND INDIVIDUALS WITH LOW INCOMES ARE BEING HURT MOST OF ALL BY THE COMBINED EFFECTS OF THE SHORTAGE, HIGH COSTS (BOTH PURCHASE AND RENTAL) AND NARROWING CHOICE OF HOUSING IN THE COUNTY.
5. PROVISION FOR THE GENERAL HOUSING NEEDS OF A GROWING NUMBER OF ELDERLY CITIZENS IS FALLING SHORT OF BEING ADEQUATE.
6. NEITHER THE PRIVATE MARKET NOR THE VARIOUS PUBLIC PROGRAMS AS PRESENTLY CONSTITUTED SEEM CAPABLE OF DEALING EFFECTIVELY, IF AT ALL, WITH THE HOUSING NEEDS OF LOW-INCOME FAMILIES AND INDIVIDUALS.
7. THE CHOICE OF HOUSING FOR MEMBERS OF MINORITY GROUPS IS STILL BEING NARROWED BY THE FORCES OF DISCRIMINATION.
8. A POOR BALANCE IN THE SUPPLY OF HOUSING SEEMS TO EXIST IN SEVERAL AREAS IN THE COUNTY.
9. SEVERAL PLANNING AND ZONING REGULATIONS AND PRACTICES MAY BE HAMPERING THE DEVELOPMENT OF LOW-COST HOUSING.

The new resident to Fresno County looking toward Kerman as a place to live will find housing available, but his choice in variety and cost will be extremely limited. The Department of Housing and Urban Development (HUD) considers a housing vacancy rate of 5 percent sufficiently high to provide for residential mobility and a reasonable choice in housing by rent, price, location, and quality.

The price of land, taxing practices, building codes, and local planning and zoning practices can and do have a significant impact on housing development costs. The latter factor is one which the City

can influence by encouraging innovative planning and development methods to ease the housing problems.

EXISTING CHARACTERISTICS

In order to better understand the housing characteristics of the community a detailed description of the existing situation must be reviewed. First consideration must be given to the types of people and their circumstances.

The following tables illustrate information obtained from the United States Census taken on April 1, 1970. This information relates to the census tract division (#40) and to the existing city limits at that time, with the basic assumption being that the City of Kerman is a representative sample of the total census tract.

FIGURE 1
CONDITION OF HOUSING
(Note Definitions)

	CENSUS TRACT #40		CITY LIMITS	CITY LIMITS	PLANNING AREA
	1960	1970	1970	1973*	1973*
SOUND	73.7%	N.A.	N.A.	84.1%	81.3%
DETERIORATING	18.9%	N.A.	N.A.	12.2%	14.5%
DILAPIDATED	7.4%	N.A.	N.A.	3.7%	4.2%
TOTAL	100.0%			100.0%	100.0%
SUBSTANDARD**	26.3%	N.A.	N.A.	19.9%	18.7%
OVERCROWDED	N.A.	17.6%	15.7%	N.A.	N.A.
INCOMPLETE PLUMBING	N.A.	2.5%	2.4%	N.A.	N.A.
INCOMPLETE KITCHEN	N.A.	0.3%	2.9%	N.A.	N.A.
TOTAL HOUSING UNITS	925	3228	824	908	1031

*Survey conducted by project director

**Summation of deteriorating and dilapidated

FIGURE 2
TYPES OF STRUCTURES

	CENSUS TRACT #40		CITY LIMITS	CITY LIMITS	PLANNING AREA
	1960	1970	1970	1973*	1973*
SINGLE FAMILY	92.5%	87.7%	87.2%	87.6%	86.7%
MULTI-FAMILY	7.5%	12.3%	12.6%	11.1%	11.8%
MOBILE HOMES	N.A.	N.A.	0.2%	1.3%	1.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

*Survey conducted by project director

FIGURE 3
HOUSING VALUES

	CENSUS TRACT #40		CITY LIMITS
	1960	1970	1970
LESS THAN \$9,999	64.7%	33.4%	32.5%
\$10,000 - \$19,999	30.1%	50.2%	51.6%
\$20,000 - \$24,999	2.4%	9.6%	9.6%
\$25,000 - OVER	2.8%	6.8%	6.3%
TOTAL	100.0%	100.0%	100.0%
MEDIAN VALUE	\$7,200	\$13,200	\$13,516

FIGURE 4
RENT

	CENSUS TRACT #40		CITY LIMITS
	1960	1970	1970
LESS THAN \$79	82.6%	38.4%	72.4%
OVER \$79	17.4%	61.6%	-
\$80 - \$119	-	-	23.8%
\$120 - OVER	-	-	3.8%
TOTAL	100.0%	100.0%	100.0%
MEDIAN RENT	\$57	\$68	\$88

FIGURE 5
VACANCY RATES
April 1

	CENSUS TRACT #40		CITY LIMITS
	1960	1970	1970
RENTAL	1.9%	3.4%	11.9%
TOTAL	8.2%	7.8%	7.4%

It should be noted that the planning consultant attempted to up-date this basic background information through the use of a planning area-wide socio-economic survey. Questionnaires were delivered to each residence in the planning area. Returned material numbered less than 10% and was not thought to be representative of the community.

FIGURE 6
PROJECTED HOUSING NEEDS

	CENSUS TRACT #40		CITY LIMITS
	1960	1970	1970
POPULATION	3090	3965	2667
NUMBER OF DWELLING UNITS	849	1203	824
PERSONS PER UNIT	3.6	3.3	3.2

The method of determining projections was simply to divide the total projected 1980 and 1990 populations by an estimated average household size and to add in an estimated vacancy factor based on historical trends. This computation yields the number of housing units a city is likely to have in 1980 and 1990. By simply adding on the number of removals likely to take place and then subtracting this figure from the 1970 census figure, one can easily arrive at the amount of construction projected between 1970 and 1980 and 1980 and 1990.

METHOD

Step 1.

$$\frac{\left(\frac{\text{Population less number in group quarters}}{\text{Average household size}} \right)}{\left(\frac{100 - \text{vacancy rate}}{100} \right)} = \text{No. of housing units}$$

Step 2. Number of housing units 1980 less number of housing units 1970 = Net Increase

Step 3. Construction less Removals = Net Increase; therefore Construction = Net Increase + Removals

These equations were applied to 1960 and 1970 Fresno County census data and were found to be valid. When used as a projection device, they yielded projections within 1% of the more complicated housing projection formula.

1980 POPULATION AND HOUSING PROJECTIONS FOR THE CITY OF KERMAN

	POPULATION	2.5 PEOPLE/HOUSE	3.0 PEOPLE/HOUSE	3.5 PEOPLE/HOUSE
LOW	3600	1440	1200	1028
MEDIUM	3800	1520	1266	1085
HIGH	3900	1560	1300	1114

AVERAGE NUMBER OF NEW HOUSING UNITS - 450
(INCLUDING THE REPLACEMENT OF DEMOLISHED UNITS)

PROPOSED BREAKDOWN OF NEW HOUSING TYPES TO BE CONSTRUCTED
BETWEEN 1970-1980 TO MEET POPULATION PROJECTIONS IN ALL PRICE RANGES

	60.0%	SINGLE FAMILY	= 270	
	15.0%	MULTI-FAMILY	= 68	
	25.0%	MOBILE HOMES	= 112	
TOTAL	100.0%		450	TOTAL NEW UNITS

1990 POPULATION AND HOUSING PROJECTIONS
FOR THE CITY OF KERMAN

	POPULATION	2.5 PEOPLE/HOUSE	3.0 PEOPLE/HOUSE	3.5 PEOPLE/HOUSE
LOW	4400	1760	1466	1257
MEDIUM	4800	1920	1600	1371
HIGH	5100	2040	1700	1457

AVERAGE NUMBER OF NEW HOUSING UNITS - 400
(INCLUDING THE REPLACEMENT OF DEMOLISHED UNITS)

PROPOSED BREAKDOWN OF NEW HOUSING TYPES TO BE CONSTRUCTED
BETWEEN 1980-1990 TO MEET POPULATION PROJECTIONS IN ALL PRICE RANGES

	65.0%	SINGLE FAMILY	=	260	
	25.0%	MULTI-FAMILY	=	100	
	10.0%	MOBILE HOMES	=	40	
TOTAL	100.0%			400	TOTAL NEW UNITS

DURING THE 1990'S THE CITY OF KERMAN MAY APPROXIMATE:
75.0% - SINGLE FAMILY HOUSING
15.0% - MULTI-FAMILY HOUSING
10.0% - MOBILE HOMES
100.0%

PUBLIC HOUSING is available to a limited extent. The Fresno County Housing Authority currently leases 40 units in Kerman. County-wide demand is well above the supply and there is generally a long waiting list. Families must also move out of a public housing unit within six months after their incomes exceed the allowable limits. Also, some families or individuals, rightly or wrongly, sense a stigma in occupying a public housing unit. For these reasons, many families otherwise eligible may not consider public housing.

MOBILE HOME living is one alternative opening to a greater segment of our society. Low and middle income families are discovering that a finished, furnished unit can be bought new for between \$5,000 to \$25,000, and used units for much less. Payments can often amount to less than \$80 per month for the unit. Rental space can

add another \$30 per month (these figures are minimum cost). Units are typically paid off in 6 to 8 years, although FHA financing is available for a 12-year term, with a \$10,000 maximum.

Kerman currently has one mobile home park with approximately 100 spaces, approximately 25% are occupied. The facilities offer many desirable features at moderate cost.

Additional mobile home parks are located outside the community. Facilities are adequate and rates tend to be less expensive.

Many individuals are following the county's regulations and are placing their mobile homes on private parcels of land.

FEDERAL PROGRAMS providing subsidy payments to renters or buyers are one method of increasing housing capability for moderate-income markets. Farmers Home Administration and the Federal Housing Administration have similar programs that are geared to those households earning too much to qualify for public housing but too little to qualify for a conventional mortgage. They feature a no or low down payment requirement and partially subsidized interest payments, geared to the income of the applicant.

A typical shortcoming of many Federal, as well as other Governmental Housing Programs, is that they often do not provide on-going homeowner counseling services in matters of financial budgeting and home management. These are especially important aids for low-income homebuyers.

COMMUNITY HOUSING OBJECTIVES

ADEQUATE HOUSING AND A SUITABLE LIVING ENVIRONMENT SHOULD BE PROVIDED FOR EVERY KERMAN FAMILY. ADEQUATE HOUSING REQUIRES A SOUND NEIGHBORHOOD ENVIRONMENT AS WELL AS EFFECTIVE GENERAL PLANNING AND BUILDING CODE ENFORCEMENT.

PROPER ZONING, SUBDIVISIONS, AND CODE ENFORCEMENT REGULATION AND TECHNIQUES--ALL HOUSING IN THE CITY SHOULD MEET THE MINIMUM REQUIREMENTS FOR DEVELOPMENT AS SET FORTH IN THE CITY'S ZONING AND SUBDIVISION ORDINANCES AND BUILDING CODES. THE ELIMINATION OF NON-CONFORMING USES FROM RESIDENTIAL AREAS, WHICH IS A PRINCIPLE CAUSE OF BLIGHT, SHOULD BE ACCOMPLISHED IN THIS OBJECTIVE.

ADEQUATE TRANSPORTATION ARTERIES AND PUBLIC SERVICES FOR EXISTING AND NEW HOUSING SITES--PUBLIC FACILITIES, SUCH AS WATER, SEWER AND ADEQUATE DRAINAGE, ADEQUATE ARTERIAL STREETS, AND POLICE AND FIRE PROTECTION, SHOULD BE PROVIDED THROUGHOUT THE RESIDENTIAL AREAS TO ENSURE VIABLE NEIGHBORHOODS AND DETER DECLINE AND BLIGHT.

THE DEVELOPMENT OF A CLEAR SET OF SHORT-RANGE AND LONG-RANGE HOUSING OBJECTIVES WHICH ACCURATELY REFLECT THE CITY'S NEEDS AND DESIRES. THESE OBJECTIVES SHOULD INCLUDE:

- 1) THE PROVISION OF A VARIETY OF HOUSING TYPES RANGING FROM LOW TO MEDIUM DENSITIES.
- 2) ELIMINATION OF SUBSTANDARD HOUSING WITHIN THE CITY.
- 3) COOPERATION WITH THE APPROPRIATE AGENCIES TO PROMOTE AND COORDINATE HOUSING PROGRAMS WITH A COMPREHENSIVE APPROACH TO HOUSING NEEDS.

THE DEVELOPMENT OF TECHNIQUES FOR BETTER COMMUNICATION BETWEEN PUBLIC AND PRIVATE INTERESTS IN THE FIELD OF HOUSING AND THE DEVELOPMENT OF AN EFFECTIVE MONITORING PROGRAM FOR ASCERTAINING CURRENT AND FUTURE HOUSING MARKET NEED INDICATORS.

OBSTACLES

Most of the problems are largely outside the control of local jurisdictions. However, as elsewhere, existing obstacles to the solution of the housing problems facing Kerman are:

THE SHORTAGE OF MONEY TO THE HOUSING INDUSTRY TO PROVIDE THE NUMBER OF HOUSING STARTS NECESSARY TO MEET DEMAND. EVEN MORE BASIC TO KERMAN'S HOUSING NEEDS IS THE HIGH COST OF MONEY (*Interest*), THE SPIRALING LAND COSTS, AND INCREASED MATERIAL AND LABOR COSTS WHICH PUSH THE COST OF AVAILABLE HOUSING BEYOND EVEN THE MIDDLE INCOME WAGE EARNER.

HOUSING CONSTRUCTION IN THE KERMAN PLANNING AREA HAS IN THE PAST BEEN COMPRISED OF SINGLE-FAMILY DWELLINGS. SOME EFFORTS HAVE YIELDED SUCCESSFUL DUPLEX AND APARTMENT COMPLEXES.

THE DEVELOPMENT OF NEW HOUSING REQUIRES COSTLY ADDITIONAL PUBLIC SERVICES AND FACILITIES.

THE CURRENT ABSENCE OF SPECIFIC POLICIES AND GUIDELINES FROM THE STATE AND COUNTY REGARDING SOLUTIONS TO HOUSING PROBLEMS.

HOUSING OBJECTIVES: POLICY CONSIDERATIONS

There is a wide spectrum of goals and programs which can be directed toward the solving of the complex housing issues facing communities. It is important that the city select and adhere to those goals and programs that address themselves to the vital housing issues and obstacles, yet do not unduly change the character of the community and affect self determination by the community.

The provision of housing in the country has traditionally been accomplished by private enterprise. Government has assumed the coordinating and supportive role, and has directly built very little housing. Most government owned housing has been either for the poor or for military families. This relationship will no doubt continue, with government's role being that of the overseer and in some cases the sponsor, but rarely a direct provider. Even so, government policy can and does materially affect housing production. It can also affect the form and quality of housing, and the access to housing of various income and ethnic groups. It can affect the rate of production and the general distribution of the supply in an area. In short, housing is a partnership between the public and private sectors, and what one does inevitably affects the others.

This section will consider what local government might do, in its coordinating and overseeing role, to assist the public in housing matters. Then the ways in which individuals, organizations and builders may respond to housing needs and government actions are discussed. Finally, ways in which each sector can directly cooperate are touched upon.

ACTIONS BY LOCAL GOVERNMENT

One of the most effective ways government can aid its citizens and the producers of housing is in fulfilling its role as a coordinator.

One hindrance to the solution of housing problems has been a lack of knowledge of the true nature of the housing problem at any point in time. By setting up a regular, orderly data collection system in cooperation with the Council of Fresno County Governments, the City could better know the situation and better judge what action is necessary at any time.

A by-product of such a system would be the development of housing market information. Such knowledge could assist individuals and builders in making their plans, and aid leaders in analyzing their commitments. Cities and counties have for some time assembled similar information for the attraction of industries and their use in decision making; the same process could be applied in housing.

A City-sponsored booklet could outline, in order, the steps necessary for the individual in meeting local laws and getting the information he needs. The booklet would also contain such information as:

- (1) ZONING, SUBDIVISION, ORDINANCE AND CODE INFORMATION.
- (2) CONSTRUCTION AND DEVELOPMENT ADVICE (BUILDING METHODS AND HOUSING TYPES).
- (3) FINANCING GUIDANCE AND ASSISTANCE (GENERAL).
- (4) PROPERTY TAX AND ASSESSMENT INFORMATION.
- (5) DATA ON AVAILABLE FEDERAL, STATE HOUSING PROGRAMS AND AIDS.
- (6) INFORMATION ON FACTORY BUILT HOUSING AND OTHER NEW APPROACHES.
- (7) TYPICAL LAND COST INFORMATION.
- (8) TYPICAL BUILDING COST INFORMATION.

This program might be more economically done on a county basis, with adaptations for each city.

Some cities have actively pursued a code enforcement program. A federally-funded enforcement program may carry funding to set up the information/assistance program mentioned above, which could then be utilized for all citizens, not only those within the code enforcement zone.

ACTIONS BY PRIVATE ORGANIZATIONS AND INDIVIDUALS

1. NEIGHBORHOOD IMPROVEMENT CAMPAIGN BY LOCAL GROUPS OR INDIVIDUALS (FIX-UP, PAINT-UP, TREE PLANTING, LANDSCAPING, ETC.). OFTEN SUCH EFFORTS FAIL BECAUSE HOMEOWNERS FEAR THE EXTRA TAXES THAT MIGHT BE LEVIED ON IMPROVED PROPERTY. ONE WAY FOR GOVERNMENT TO ENCOURAGE SUCH ACTION IS TO GRANT A MORATORIUM ON TAX INCREASES OR OFFER OTHER INDUCEMENTS TO INDIVIDUAL INITIATIVE.
2. LOCAL INDUSTRY SUPPORT OF HOUSING PROGRAMS. OFTEN MAJOR LOCAL INDUSTRIES ARE INSTRUMENTAL IN PROMOTING HOUSING DEVELOPMENT IN A TOWN, AS A MATTER OF SELF-INTEREST. THIS EFFORT CAN TAKE THE FORM OF FINANCIAL ASSISTANCE, ADMINISTRATIVE ASSISTANCE, ADVICE FOR EMPLOYEES, BACKING OF LOANS, PROVISION OF LAND, OR JUST GENERAL ENCOURAGEMENT FOR OTHER HOUSING DEVELOPERS.
3. LOCAL BUILDERS AND DEVELOPERS. THOSE IN THE BUILDING INDUSTRY AND BUSINESS HAVE ALWAYS BEEN THE FIRST LINE OF SUPPORT IN MEETING LOCAL HOUSING NEEDS. IT IS THEY WHO BEST "KNOW THE ROPES" AND WHO CAN OFTEN PROVIDE THE BEST RESULTS.

PUBLIC AND PRIVATE COOPERATIVE PROGRAMS

1. CONFERENCES TO DISCUSS MUTUAL PROBLEMS AND GOALS. OFTEN THE BEST MEANS TO THE SOLUTION OF A BROAD PROBLEM SUCH AS HOUSING IS A BRINGING TOGETHER OF ALL INTEREST PARTIES FOR INFORMATION EXCHANGE AND "BRAINSTORMING." SOMETIMES THIS IS MOST EFFICIENTLY DONE ON A COUNTY WIDE SCALE.
2. ALLOCATION OF HOUSING EFFORTS ACCORDING TO THE CAPABILITIES OF EACH SECTOR. SOME TASKS CAN BEST BE DONE BY GOVERNMENT: OTHER TASKS ARE BEST DONE BY PRIVATE ENTERPRISE. WHEN OVERALL GOALS ARE AGREED ON, MEANS TO THOSE GOALS CAN BE DISCUSSED AND RESPONSIBILITIES DIVIDED BETWEEN THE PUBLIC AND PRIVATE SECTORS.

CURRENT AND PROPOSED PLANNING ACTIVITIES

The City of Kerman is currently taking the following steps in seeking solutions to its housing problems:

THE PREPARATION OF A COMPREHENSIVE GENERAL PLAN, INCLUDING THE HOUSING ELEMENT TO PLAN FOR AND ENCOURAGE ORDERLY GROWTH AND COMMUNITY DEVELOPMENT.

A CONTINUING PROGRAM OF REVIEW AND IF NECESSARY, MODIFICATION AND UPDATING OF THE GENERAL PLAN AND CITY PLANNING ORDINANCES.

THE CONTINUING REVISION AND UPDATING OF THE CITY'S BUILDING, PLUMBING, ELECTRICAL AND HOUSING CODES TO ALLOW FOR ADVANCES IN TECHNOLOGY AND ASSIST IN THE ACCOMPLISHMENT OF THE HOUSING OBJECTIVES.

COOPERATING WITH OTHER GOVERNMENTAL AGENCIES AND CONTINUING TO TAKE AN ACTIVE INTEREST IN SEEKING SOLUTIONS TO AREA-WIDE ENVIRONMENTAL PROBLEMS WHICH COULD AFFECT THE CITY'S HOUSING PLANS.

SURVEY OF AVAILABLE FEDERAL, STATE, AND LOCAL HOUSING PROGRAMS AND TOOLS.

WORK WITH FRESNO COUNTY HEALTH DEPARTMENT IN THE INSPECTION OF SUBSTANDARD HOUSING UNITS.

IMPLEMENTING ACTIONS

The subsequent development and implementation of the General Plan recommends a number of planning activities and concepts directed toward the housing objectives.

THE CITY WILL RESPOND TO WHAT THE COUNCIL OF FRESNO COUNTY GOVERNMENTS HOUSING ELEMENT RECOMMENDS AND WILL SEEK TO PARTICIPATE THROUGH THE COMMITTEE STRUCTURE.

THE LAND USE ELEMENT AND ITS RECOMMENDATIONS FOR RESIDENTIAL DENSITY RANGES. THE FLEXIBILITY PROVIDED IN THIS ELEMENT, COUPLED WITH THE COMMUNITY DESIGN POLICY, ALLOW FOR GREATER OPPORTUNITIES FOR HOUSING INNOVATION INCLUDING DESIGN, SITE PLANNING, AND HOUSING TYPES.

7

THE CONSERVATION ELEMENT

INTRODUCTION

The Conservation Element was added to the State Planning Law in 1970. It requires each county and city to address its planning considerations to three basic aspects of our natural resources:

1. CONSERVATION
2. DEVELOPMENT
3. UTILIZATION

The law singles out several particular items to be discussed. Those applicable to the San Joaquin Valley include the following:

1. WATER
2. RIVER
3. FLOOD CONTROL
4. SOILS
5. MINERALS
6. FORESTS
7. WILDLIFE

Before continued discussion of this element it must be realized that the City of Kerman has only limited impact or interaction with regard to the far reaching implications associated with the intent of this law. The City's citizens realize that only through an effort of cooperation at a greater scale (*County, Region, State, Federal and International*) true conservation, utilization and development of our world's natural resources can come to pass.

This Element is a compilation of known information pertaining to Fresno County. It utilizes reports prepared by organizations that have expertise in given areas and who have taken the time to survey and analyze various portions of Fresno County. The intent of this Element is to describe and illustrate various aspects of the county's environs. The report also indicates specific information, and where it can be found, that can help local government direct specific plans to implement the Medium and Long-Range General Plan.

in the value of its agricultural production.

Drainage for the Eastside Valley is provided primarily by the San Joaquin and Kings Rivers. The Westside Valley, however, is drained by a series of small streams which disappear into their alluvial fans at the base of the foothills. These streams are dry except during the winter and spring runoffs.

From time to time, water has flowed the length of the San Joaquin Valley, but now the huge alluvial delta of the Kings River effectively blocks northward flow of water under normal conditions. Most of the Kings River water has, for some years, drained into Tulare Lake, which has no outlet. Tulare Lake is now gradually drying up as most of the water of the Kings River (as well as the San Joaquin River) is impounded, during the winter and spring, to be used for irrigation during the dry summer months. There is still a water connection between the Kings and San Joaquin Rivers, which is known as the Fresno Slough. This watercourse lies at the low point of the valley in Fresno County and flows northward to the San Joaquin River.

In earlier years, severe flooding was a frequent experience in Fresno County. The Kings and San Joaquin Rivers and the Sierra foothill streams would discharge flood waters following each severe rainstorm and spring snowmelt. Construction of Pine Flat and Friant Dams has greatly reduced flooding from the rivers. Flood control reservoirs have been constructed on Big Dry and Fancher Creeks northeast of Fresno by the Corps of Engineers and the Fresno Metropolitan Flood Control District, materially reducing flooding of the Fresno-Clovis metropolitan complex.

Streams draining the Coast Range foothills are frequent offenders,, flooding much valuable agricultural land, damaging roads and, to some extent, flooding Coalinga, Huron, Mendota, Firebaugh, Dos Palos, and smaller com-

munities. The Bureau of Reclamation has constructed a flood-control reservoir on Little Panoche Creek, thereby reducing the flooding potential of this stream.

Structurally, the valley is a westward continuation of the sloping Sierra Nevada block until it reaches the edge of the Coast Range. This structural depression has gradually filled with water-borne sediments washed from the eroding mountains. Huge alluvial fans stretch more than halfway across the valley from the east and are so numerous that they are nearly indistinguishable, forming a continuous alluvial piedmont. The greater part of the alluvial deposition has come from the Sierra Nevada, which receives much more precipitation than the Coast Range. As a result, the valley slopes farther and more gradually from the Sierra Nevada to a low point which lies about two-thirds of the way across the valley from the east.

The Coast Range consists of parallel ridges of sedimentary rock which have been raised many times by folding and faulting and subsequently worn down by erosion. Many small valleys lie between and within the ranges, consisting of sediment eroded from the mountains. The Diablo Range is the most easterly of the Coast Ranges and that which bounds the San Joaquin on the west.

The Sierra Nevada, which bounds the San Joaquin Valley on the east, is one of the world's spectacular alpine systems. Structurally, it consists of a huge granite blocks about 70 miles in width which have been uplifted and tilted toward the west. The gradual processes of mountain building and erosion have over a long period of time formed the Sierra Nevada, as we know it. The slope toward the San Joaquin Valley from the crest is relatively gentle, but the eastern face of the Sierra Nevada

presents a precipitous escarpment.

The Eastside Valley consists of nearly level terrain where alluvial plains or fans are the dominant feature. The general slope of the land surface is a slight southwesterly decline of about 5 feet per mile. The Friant-Kern Canal, which forms the eastern boundary, is located along the base of the foothills and mountains of the Sierra Nevada. Elevations along the canal range from 500 feet near the San Joaquin River on the north of Friant Dam to 450 feet at the Kings River above Centerville on the south. The northern boundary is formed by the meandering San Joaquin River, with flood plains as wide as 1 mile, having the low plains only about 5 feet above the channel and as narrow as one-sixteenth of a mile, and having the high fan some 90 feet above the channel. The southwestward flowing Kings River forms the southerly boundary below Kingsburg to a point south of Riverdale, where it splits into two channels. One of these channels flows westward to the Fresno Slough. The Fresno Slough forms the boundary between the Eastside Valley and the Westside Valley and foothills planning area. Flow in the Fresno Slough is northwesterly to a point 2 miles north of Mendota where it joins with the San Joaquin River.

The high lying between the San Joaquin and Kings Rivers, lying from 10 to 90 feet above the present day channels, are not subject to inundation by these large perennial streams.

CLIMATE

Within the boundaries of Fresno County, there are broad variations in climate. The Eastern Fresno Area has warm to hot summers and mild winters. Precipitation is fairly light. Winter storms from the Pacific Ocean drop rain in the valley and large amounts of snow in higher areas. The location

of the area in the western part of the continent protects it from the temperature extremes common in the middle part of the continent. This insures an equable temperature in the area and encourages intensive cultivation of specialty crops. The light precipitation, however, makes irrigation essential for most crops.

The increase in elevation in the eastern third of the survey area considerably influences the precipitation pattern. Moist air from the Pacific Ocean comes into the area over the coast range. Little precipitation falls until the air moves into the Sierra foothills. The amount that falls increases with altitude as the moist air ascends the mountains. It varies, however, according to the aspect of the terrain over which the moisturebearing winds pass.

In general, temperatures decrease with increase in altitude, though variations occur. The minimum temperature is somewhat warmer, for example, on the eastern parts of the alluvial fans a few hundred feet above the valley trough. As a result crops are not so likely to be damaged by the frost that occasionally damages crops in nearby areas. Also, drainage and trapping of cold air cause the temperature to be abnormally cold at times in low areas.

TEMPERATURE - Temperatures in the Eastern Fresno Area range from hot in summer to moderate in winter. Along the Sierra foothills the minimum temperatures in winter are appreciably warmer than in adjoining areas to the east and to the west. This area consequently is favored for the growing of crops that are sensitive to frost. It is not, however, without a frost hazard (Figures 3, 4, 5, and 6).

The growing season, or the period between the last freezing temperature in spring and the first in fall, varies widely throughout the Area. The number of days between the last temperature of 32° or colder in spring

FIGURE 3
JANUARY
AVERAGE MINIMUM
TEMPERATURE (DEGREES F.)

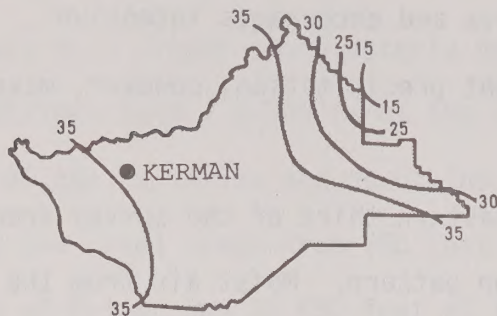


FIGURE 4
JULY
AVERAGE MAXIMUM
TEMPERATURE (DEGREES F.)

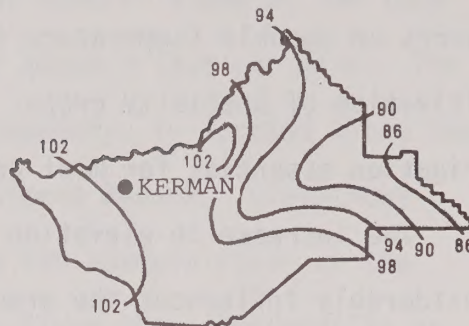


FIGURE 5
AVERAGE DATE OF EARLIEST FROST
IN FALL (32°F.)

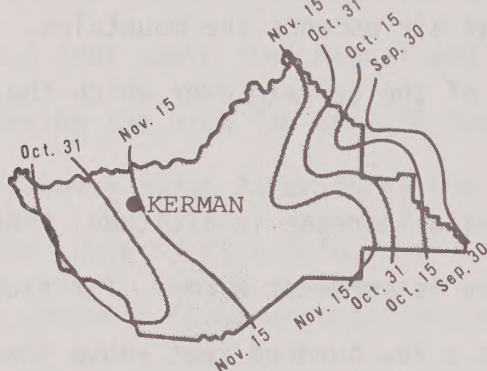
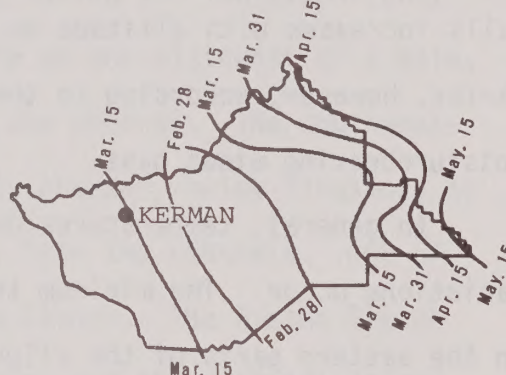


FIGURE 6
AVERAGE DATE OF LATEST FROST
IN SPRING (32°F.)



and the first in fall is variable, and that between the last temperature of 28° or colder in spring and the first in fall is also variable. The 32° growing season ranges from 215 to 230 days in the valley, increases to 250 to 300 days along the edge of the foothills, and decreases to 150 to 200 days at an elevation of 2,500 feet. The 28° growing season is about 290 days at the lowest elevations. It ranges from 315 to 350 days in the warmer parts of the Area and drops to as little as 200 to 250 days at the upper edge of the Area. The general freezing temperature pattern is shown in Figure 7 and 8.

PRECIPITATION - In the Eastern Fresno Area, precipitation in the driest part, toward the west, is about 8 inches per year. It is about 35 inches,

FIGURE 7
LENGTH OF GROWING SEASON
(28°F.)

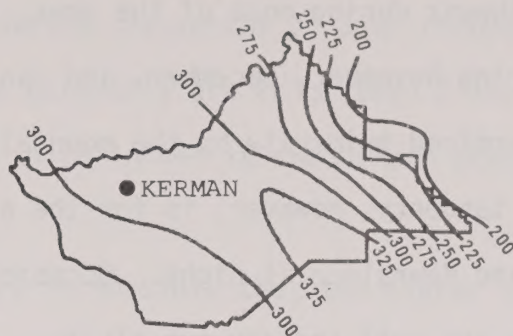
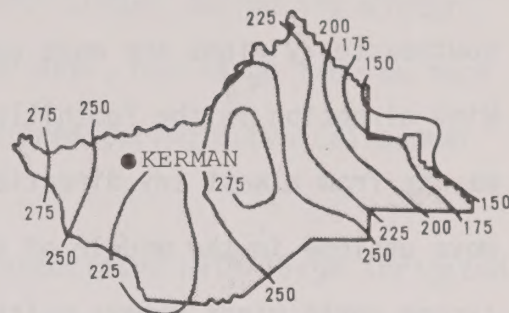


FIGURE 8
LENGTH OF GROWING SEASON
(32°F.)



however, at the upper end of the Area, toward the east (Figure 9).

The average annual snowfall in the Eastern Fresno Area is shown in Figure 10. Snow rarely falls in the valley, and only slight amounts of snow fall at lower elevations in the foothills.

FIGURE 9
AVERAGE ANNUAL PRECIPITATION
(INCHES)

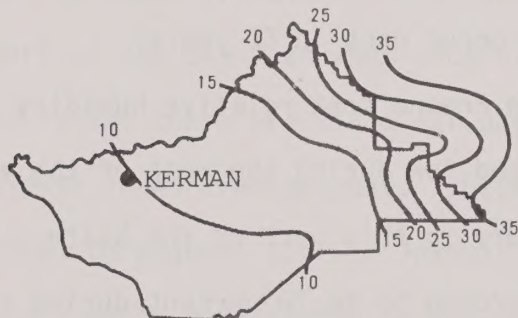
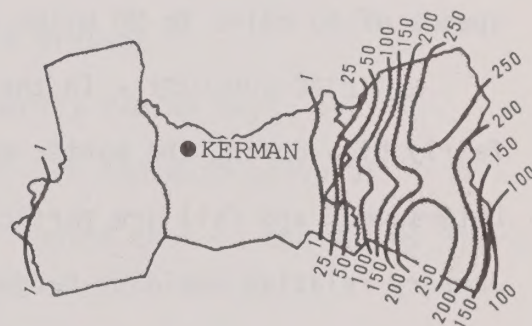


FIGURE 10
AVERAGE ANNUAL SNOWFALL
(INCHES)



SOIL MOISTURE -Plant growth is related to the amount of moisture used by a plant. This characteristic provides a convenient basis for computing estimated plant growth in different areas. It is possible to compute the amount of moisture a plant could use under the existing climate if adequate water were available and thus to estimate the potential growth of plants in the particular climate.

In the San Joaquin Valley a plant growing throughout the entire year could make use of about 36 inches of moisture if water were available.

WIND - At low elevations the direction of the wind tends to parallel the mountain ranges on either side of the San Joaquin Valley. In open areas the prevailing wind blows from the northwest during most of the year, though southeasterly winds are more common during November, December, and January. Wind direction in the foothills is determined primarily by the mountains and may be from almost any direction. The tendency, however, is for the air to move upslope in the middle of the day and downslope at night. Occasionally, strong north winds remove moisture from the soil and dry out plants. These winds generally have greater velocity and are more gusty in the western side of the valley than in the eastern.

The strongest winds blow from the southeast in winter and from the northwest the rest of the year. Windspeed is lowest around November and greatest in June. The windspeed reaches 30 miles an hour at low elevations and as much as 50 miles an hour at higher elevations about once every 2 years. Windspeeds of 60 miles to 80 miles an hour occur once in 50 years.

RELATIVE HUMIDITY - In the Eastern Fresno Area relative humidity is fairly high during the winter months, and low during the rest of the year. Late summer and fall are particularly dry in this part of the State. In January relative humidity ranges from around 50 to 70 percent during the day to 90 percent at night. Fog generally forms in the San Joaquin Valley for some periods in winter and may persist for a week or longer.

Relative humidity is moderate in spring and fall. It commonly ranges from 75 to 85 percent at night and to about 30 percent during the day. Summer and early fall are likely to be very dry. Then the average relative humidity is likely to be less than 15 percent in the afternoon and range from 60 to 80 percent at night.

EVAPORATION - The total annual evaporation from a *Class A pan* ranges

from about 100 inches in the San Joaquin Valley to about 60 to 70 inches at elevations of 2,500 feet. About two-thirds of the annual amount is lost during the months of June through October. Losses during the winter months generally are less than 2 inches in 30 days, but range from as much as 14 to 18 inches in the warmer parts of the Area during a typical summer month.

It is possible that the higher humidity associated with large irrigated areas would result in somewhat lower evaporation values in those areas. Evaporation from lakes is about 75 percent of the *Class A pan* evaporation.

SUNSHINE - At Fresno, records show that during the months of June through September the sun shines more than 95 percent of the daylight hours, but it only shines 45 to 50 percent of the daylight hours during December and January. Cumulus clouds over the foothills reduce the amount of sunshine somewhat in summer. Nevertheless, sunshine is likely to be received for a good part of the day even when such clouds are present.

At Fresno there are 196 clear days, 74 partly cloudy days, and 95 cloudy days in an average year. These figures are representative of conditions throughout the San Joaquin Valley, except that in the summer there are likely to be more clouds in the mountains.

SOILS

A basic understanding of soil characteristics is essential in order to understand both present and future patterns of land development and utilization. With increasing emphasis on environmental quality, ecological factors related to land use take on unprecedented significance.

The soils of Fresno County are noted for being among the richest and most productive in the world. A combination of soils, climate, and water have been combined by nature and the efforts of man to produce one of the

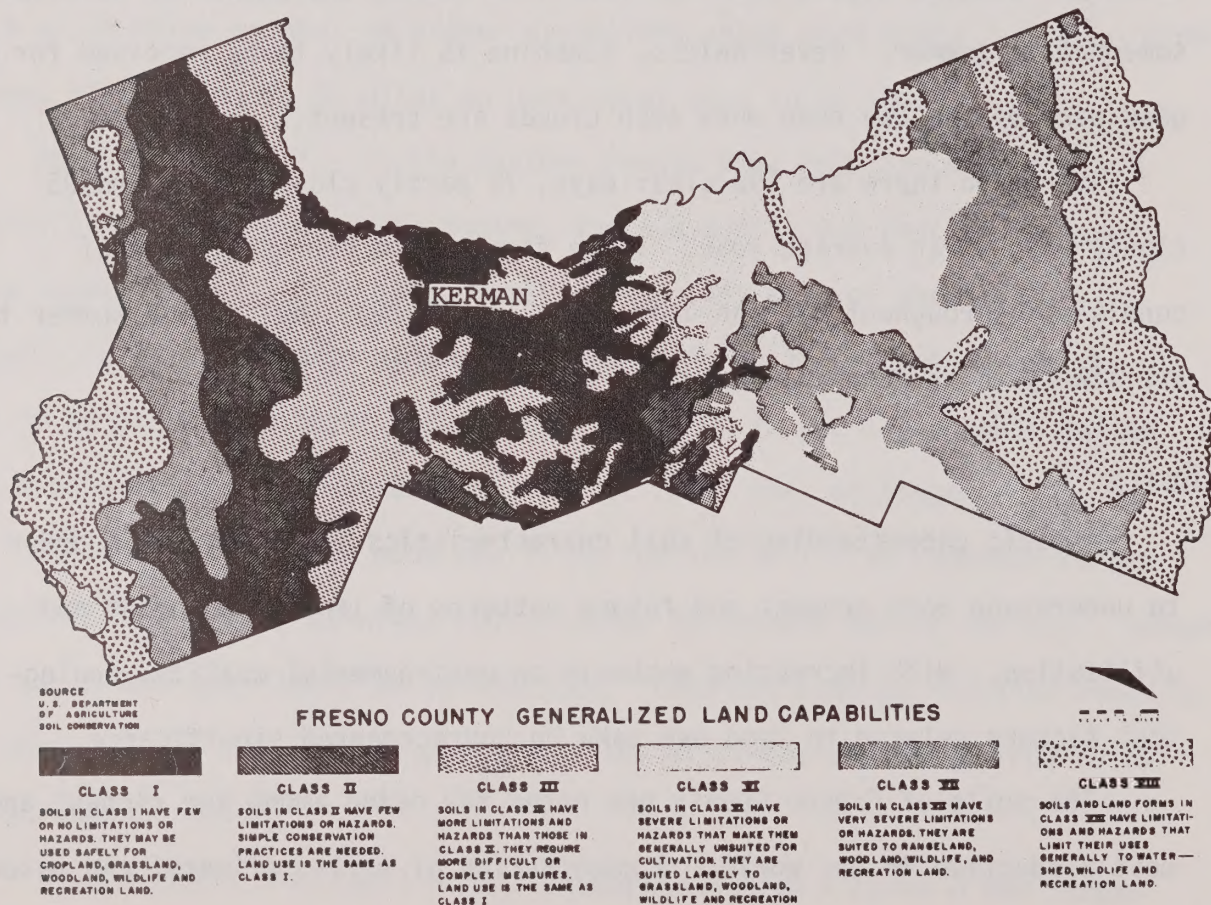
world's unique regions.

For purposes of an overview, the county's soils are analyzed from the standpoint of the valley floor and the foothill-mountain areas above the 500 foot contour.

Soils found in the valley floor generally fall into three capability classes: I, II and III. These are considered agricultural lands with Classes I and II being the prime soils. Figure 2 graphically illustrates the distribution of the soil capabilities.

The alluvial fan areas of the county lie below the foothills on both the east and west sides of the valley and slope toward the central drainage channel, the Fresno Slough. The most productive agricultural soils are

FIGURE 11
FRESNO COUNTY GENERALIZED LAND CAPABILITIES



located in these areas. The best soils on the westside are found on a north-south band between Merced and Kings Counties varying in width between eight and twenty miles. This includes the largest single concentration of Class I soils in the state. The eastside alluvial soils extend in a somewhat wider band of about 25 miles from about the Friant-Kern Canal to roughly a line connecting Riverdale, Caruthers, and Kerman. The major exceptions from this alluvial band are in the Fresno-Clovis area and Reedley-Orange Cove area where the soils are Class III. Most of the alluvial soils are Class II; however, significant areas of Class I soils are found in the Parlier-Reedley-Del Rey area east of U.S. Highway 99 and southwest of Fresno.

The poorest soils (the alkali soils) in the valley floor are found in bands on either side of the Fresno Slough. The band west of the slough is about five miles wide in the area north of the Lemoore Naval Air Station and narrows down as it extends northward toward Mendota. A much wider band of these soils is found on the east side of the slough. It begins north of Laton and Riverdale where it is about two miles wide. At Manning Avenue, it is ten miles wide and continues to widen up to the San Joaquin River. At North Avenue, it expands eastward as a long three-mile-wide fringe toward south Fresno.

The basin soils found in the four-mile-wide band along the slough itself between Mendota, Tranquillity, San Joaquin, and Riverdale are of moderate quality, Class III, non-alkali in character.

Soils found above the 500-foot contour are in land capability Classes VI, VII and VIII. These have severe limitations that make them generally unsuitable for cultivation. They are, however, suitable as grass lands and rangelands, woodlands, wildlife, recreation lands, and watersheds. These

soils are being used also to support rural residential and urban uses related to the recreational attractions of the foothills and mountains. Because of soil limitations, these activities must be subject to careful interpretation of soil characteristics in order to minimize soil erosion, damage to vegetation, water pollution and aesthetic degradation.

The General Soil Map (Figures 12 and 13) indicates the soil association

FIGURE 12
GENERAL SOIL MAP

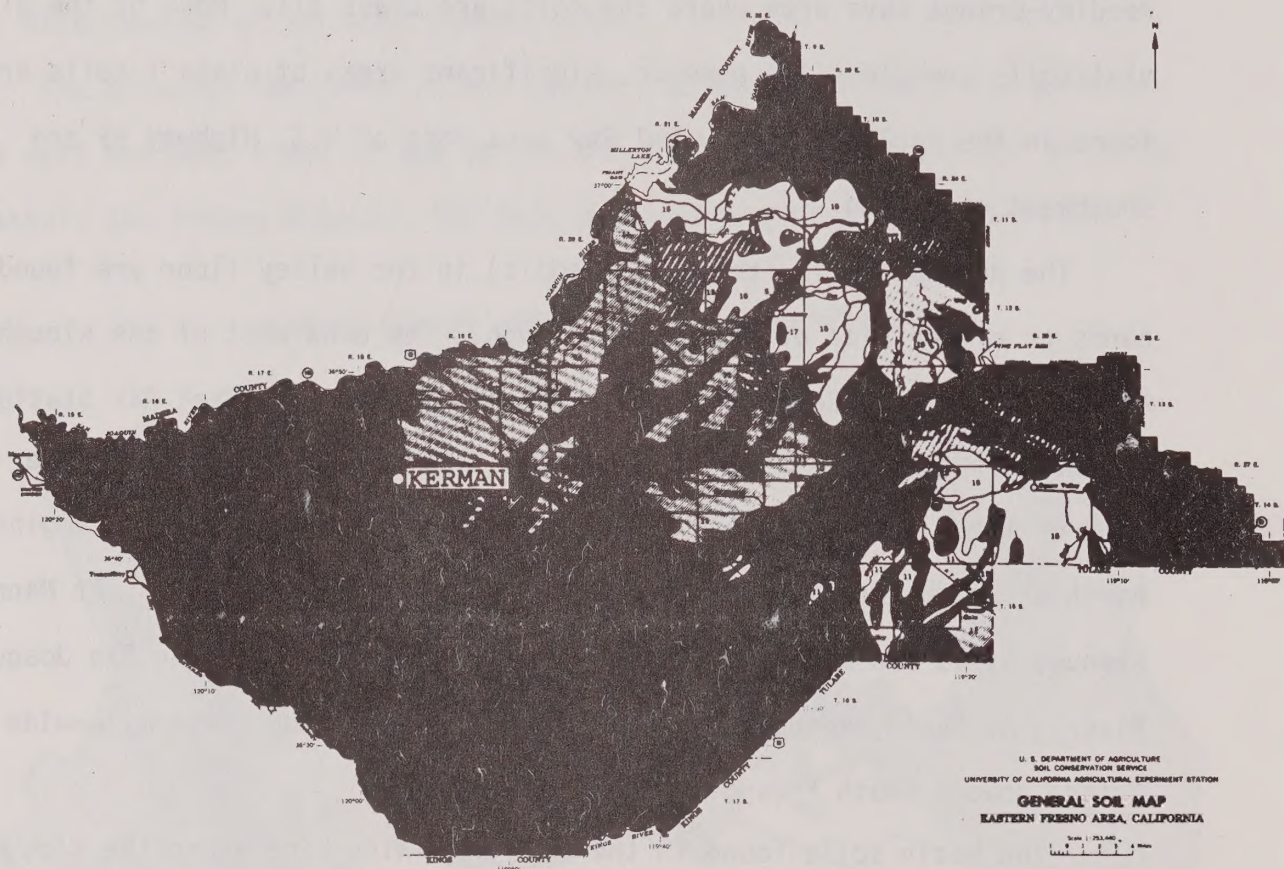


FIGURE 13
SOIL ASSOCIATIONS

- SOILS OF THE VALLEY BASIN**
- POORLY DRAINED SOILS OF THE BASIN FLOOD PLAIN**
- Merced-Tamale association. Deep and very deep clay loams and clays.
- SOMEWHAT EXCESSIVELY DRAINED TO POORLY DRAINED SOILS OF THE BASIN RIM**
- Reese-Huachuca association. Deep, somewhat poorly drained and poorly drained, dominantly fine sandy loams that are saline-sodic.
 - Francis El Peque association. Somewhat poorly drained fine sandy loams that are saline-sodic and that are shallow to moderately deep to a hardpan.
 - Traver-Cahill association. Somewhat poorly drained to somewhat excessively drained fine sandy loams to loamy sands that are saline-sodic and that are moderately deep or deep to compact silt.
- SOILS OF THE EASTSIDE VALLEY ALLUVIAL PLAINS**
- EXCESSIVELY DRAINED TO SOMEWHAT POORLY DRAINED SOILS OF RECENT ALLUVIAL FANS AND FLOOD PLAINS**
- Grangeville-Chino association. Deep and very deep, somewhat poorly drained sandy loams to loams.
 - Harford-Tulare association. Deep, well-drained to excessively drained, dominantly loamy sands to fine sandy loams.
- SOMEWHAT EXCESSIVELY DRAINED TO MODERATELY WELL DRAINED SOILS OF YOUNG ALLUVIAL FANS**
- Harford-Hesperia association. Well-drained sandy loams and fine sandy loams that are moderately deep or deep to compact silt.
 - Harford-Cahill-Hesperia association. Deep, somewhat excessively drained and well-drained sands to fine sandy loams, partly wind modified.
 - Phelan-Hesperia association. Well drained and moderately well drained fine sandy loams or loams that are moderately deep or deep to compact silt.
 - Gravelly-Hesperia association. Well-drained loamy sands and sandy loams that are moderately deep or deep to compact sandy material, partly wind modified.
- WELL-DRAINED SOILS OF LOW ALLUVIAL TERRACES**
- San Joaquin-Essex-Huachuca association. Sandy loams to loams that are shallow to moderately deep to a hardpan and deep sandy loams and loams.
 - Academy II duff association. Loams that are moderately deep to a compact layer and soils of similar texture that are shallow to a compact hardpan.
- WELL-DRAINED SOILS OF HIGH ALLUVIAL TERRACES**
- Centerville-Hesperia association. Clays that are moderately deep to a compact material and cobbly clay loams that are shallow to a compact hardpan.
 - Phelan-Budding association. Gravely loams that are moderately deep to a compact layer or a compact hardpan.
- SOILS OF THE UPLANDS OF THE SIERRA NEVADA FOOTHILLS**
- EXCESSIVELY DRAINED TO WELL-DRAINED SOILS OF THE LOWER FOOTHILLS**
- Vista-Fallbrook association. Well-drained sandy loams that are shallow to moderately deep over granitic rock.
 - Blossington-Edgemoor-Tivy association. Well-drained and somewhat excessively drained fine sandy loams to clay loams that are over basic igneous rock.
 - Cedar-Palmerville association. Well-drained and somewhat excessively drained clays that are moderately deep to deep over basic igneous rock and permeable sediment.
 - Farther-Chapman association. Well-drained to excessively drained loams that are shallow to moderately deep over serpentine rock.
- SOMEWHAT EXCESSIVELY DRAINED AND WELL-DRAINED SOILS OF THE UPPER FOOTHILLS**
- Aubrey-Bushmore association. Well-drained and somewhat excessively drained sandy loams that are moderately deep and deep over granitic rock.
 - Cornucopia association. Somewhat excessively drained fine sandy loams that are deep over metamorphic rock.
 - Twiner-Tribune association. Well-drained and somewhat excessively drained sandy loams to loams that are moderately deep and deep over basic igneous rock.
- May 1970

is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in one association may occur in another, but in a different pattern.

A map showing soil associations is useful to people who want a general idea of the soils in an area, who want to compare different parts of an area, or who want to know the location of large tracts that are suitable for a certain kind of land use. Such a map is a useful general guide in managing a watershed, a wooded tract, or a wildlife area, or in planning engineering works, recreational facilities, and community developments. It is not a suitable map for planning the management of a farm or field, or for selecting the exact location of a road building, or similar structure, because the soils in any one association ordinarily differ in slope, depth, stoniness, drainage, and other characteristics that affect their management.

Specific information may be obtained by referring to a publication prepared, in 1971, by the United States Department of Agriculture, entitled *"SOIL SURVEY - EASTERN FRESNO AREA, CALIFORNIA."* The report explains in detail:

1. SOILS OF THE VALLEY
2. DESCRIPTION OF THE SOILS (all 83 series)
3. USE, MANAGEMENT AND PRODUCTIVITY OF THE SOILS INCLUDING:
 - A. YIELD PREDICTIONS AND MANAGEMENT PRACTICES
 - B. SALINE AND SALINE-ALKALI SOILS
 - C. GUIDELINES FOR RECLAMATION OF SALINE AND SALINE-ALKALI SOILS
 - D. RECLAMATION PRACTICES
 - E. USE OF THE SOILS FOR RANGE AND PASTURE
 - F. ENGINEERING USES OF THE SOIL
 1. ENGINEERING CLASSIFICATION SYSTEMS
 2. ENGINEERING TEST DATA
 3. ENGINEERING PROPERTIES
 4. ENGINEERING INTERPRETATIONS
 - G. NONFARM USES OF THE SOILS
4. FORMATION AND CLASSIFICATION OF SOILS
5. LABORATORY ANALYSIS
 - A. PHYSICAL AND CHEMICAL ANALYSIS
 - B. MINERALOGICAL ANALYSIS OF CLAY FRACTIONS

6. AND A COMPLETE SET OF AERIAL PHOTOGRAPHS INDICATING SOIL CLASSIFICATION AS A SCALE OF ONE INCH EQUALS 24,000 FEET.

Figures 14 and 15 indicate the soil classifications for the cities planning area. The soil legend has been reproduced to illustrate what the "letters" mean. Exact descriptions can be found in the forementioned publication.

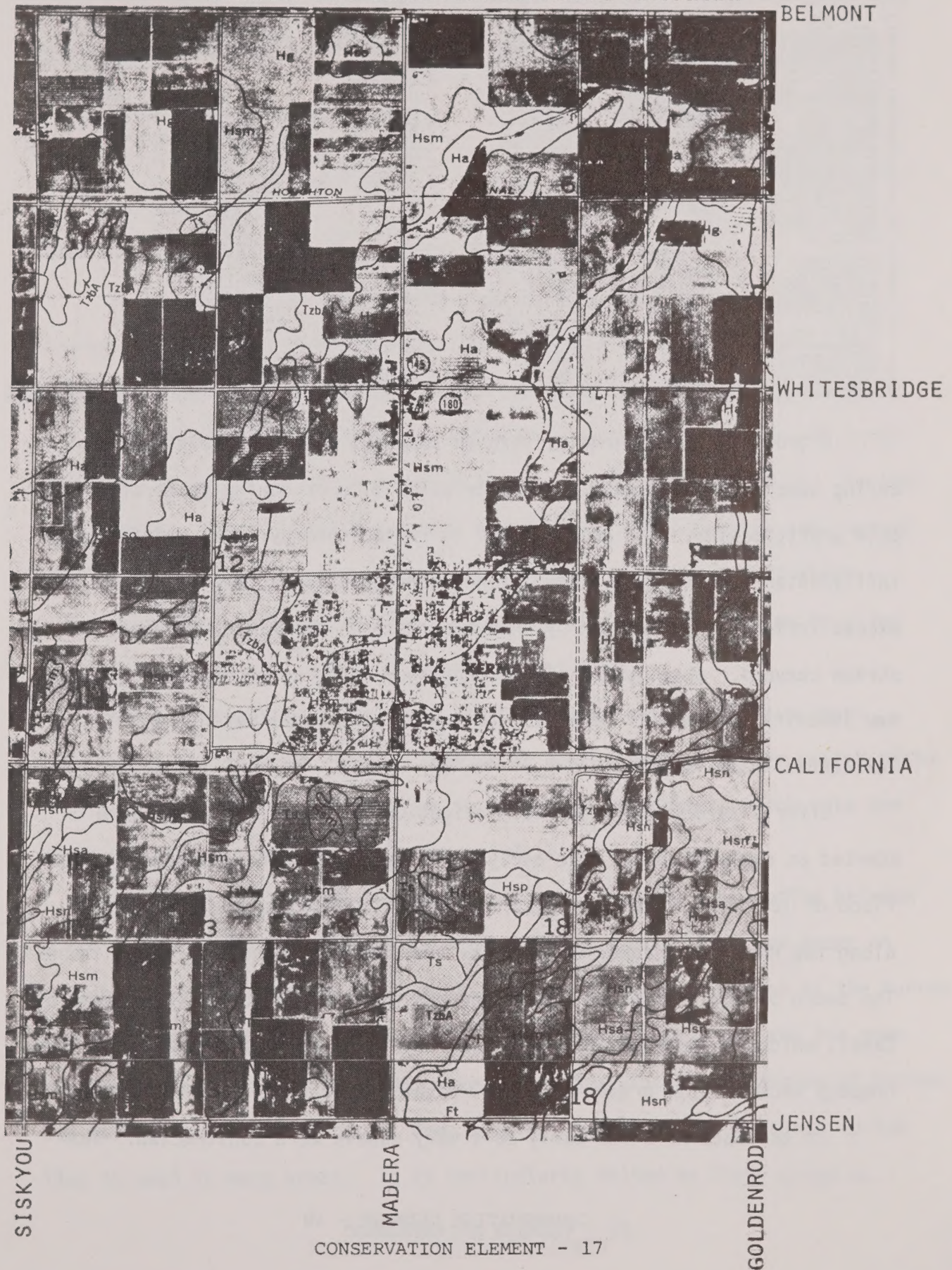
WATER SUPPLY AND IRRIGATION

Water of generally good to excellent quality is available to the Eastern Fresno Area from streams, rivers, reservoirs, springs, and rainfall. The natural source is runoff or accumulation of rainfall and snowfall from the Sierra. Winter accumulation of snow in the higher mountains provides a seasonal reservoir of water. The water flows to the area mainly through the Kings and San Joaquin Rivers. The peak period of flow generally is in May or June. The Kings River supplies nearly all of the surface water used for irrigation and much of the ground water used for irrigation and much of the ground water pumped for irrigation and for domestic and industrial use. The San Joaquin River mainly replenished the supply of ground water used in the northern part of the Area.

Much of the water from Millerton Lake is diverted to the southern part of the San Joaquin Valley through the Friant-Kern Canal. This canal runs along the eastern edge of the valley and is siphoned under the major rivers and larger streams. A relatively small amount of this water is diverted from the canal for the use of two irrigation districts in the survey area.

The construction of the Friant and Pine Flat Dams and other dams upstream, on both the Kings and San Joaquin Rivers, has helped to control flooding. The dams also help to regulate the use of surface and ground water. This is necessary because much farming in this Area is done under irrigation.

FIGURE 14
DETAILED SOIL CLASSIFICATION AERIAL PHOTOGRAPH



Each symbol consists of letters as a combination of letters and numbers. The first capital letter is the initial one of the soil name. A second capital letter, if used, shows the class of slope. Suffixes for which

Soil was constructed 1968 by Cerrographic Division, Soil Conservation Service, USDA, from 1957 and 1961 aerial photographs. Contoural maps based on California plane coordinate system. Four ring, Lamer California plane coordinate system. 1977 North American datum.

Efforts to develop a surface irrigation system for the Area were started as early as 1860. The early works were destroyed, however, by the flood of 1867-68. Later in 1868, the Centerville Ditch was constructed along the Hazelton Channel to irrigate the territory around Centerville. The Sween Ditch, started in 1867 later was extended and became the Easterby Canal, which in turn, became the Fresno Canal and Irrigation Company. This company became the present Fresno Irrigation District.

CONSERVATION ELEMENT - 18

development of the canal system resulted in the voluntary establishment of the Kings River Water Users Association in 1918. Principal irrigation districts now distributing water from the Kings River are:

1. the Fresno
2. the Consolidated
3. the Alta
4. the Laguna
5. the Riverdale
6. the James

There are also a few smaller districts.

In the foothills, water is obtained from perennial and seasonally intermittent streams, from springs, and from shallow wells in pockets of alluvium or deeply weathered rock. Special spoke wells, which have several lateral borings from the principal boring, are successful at times in intercepting water seepage along certain breaks or fractures in the rock. Earthen dams have been constructed throughout the foothills to intercept and impound water for stock or for recreational use, and in a few places sufficient water is available to permit establishment of irrigated pasture or to allow irrigation for apple orchards at higher elevations.

Irrigation methods in general use in Eastern Fresno Area are check flooding of the surface, between contour or graded checks; furrow, which often results in wetting only part of the surface; and sprinkling, which wets the whole surface in a manner similar to rainfall.

Alfalfa, grain, and pasture generally are irrigated by flooding between border checks. Rice is flooded between contour checks. Such row crops as cotton, sugar beets, grain sorghum, and corn are irrigated by use of the furrow method. In addition the furrow method is used for truck crops and for some vineyards and orchards. In some orchards and vineyards a combination of furrow and basin checks is used to get deep soaking of the water. Overhead sprinkling is used in many areas. It is particularly suited to field crops on

soils that are too steep or shallow, or on sandy soils that have a high infiltration rate. Low set, low volume sprinklers are used on some orchards, particularly in citrus, where sprinkling can also, under certain conditions, offer some frost protection.

NATURAL VEGETATION

The valley areas are mostly cultivated and support a variety of crops under irrigation. Some natural vegetation remains on the terraces along strips of riparian lands, and in unreclaimed areas of saline-alkali soils. In the foothills the vegetation ranges from open areas of annual grasses to dense areas of trees and shrubs or chaparral. During the dry season, in summer and early in fall, the hazard of fire in the foothills is serious. Consequently, fire lookout and control stations are maintained here during the fire season by the California State Division of Forestry. Much of the native vegetation in the Area has been replaced by introduced species or has been eliminated by cultivation and grazing.

VEGETATION IN THE VALLEY AREAS - The valley lands originally supported large herds of elk, antelope, and wild horses that grazed mainly on native grasses. Even as early as 1844, filaree (*Erodium cicutarium*), an introduced forb from the Mediterranean region was noted in the stands. Marshes occupying the valley trough supported large areas of bulrush or tule (*Scirpus acutus*) and cattail (*Typha* sp.). Trees and shrubs grew along many of the streams and rivers, as they do today. These include cottonwood (*Populus fremontii*), willow (*Salix* sp.), western sycamore (*Platanus racemosa*), wild rose (*Rosa* sp.), California blackberry (*Rubus vitifolius*), and valley oak (*Quercus lobata*).

On the uncultivated terraces, the present herbage consists mainly of red brome (*Bromus rubens*), soft chess (*Bromus mollis*), foxtail (*Festuca megalura*), and filaree. Burclover (*Medicago hespida*) and wild oats (*Avena*

barbata) grow in places on the finer textured soils in years when the supply of moisture is favorable. Many forbs, including such wild flowers as California poppy (*Eschscholtzia californica*), blue lupine (*Lupinus* sp.), brodiaea (*Brodiaea* sp.), and buttercups (*Ranunculus californicus*) are conspicuous in spring.

The natural cover of the unreclaimed saline-alkali soils consists of poor stands of red brome, soft chess, and foxtail, and of plants that tolerate salts and alkali are saltgrass (*Distichlis spicata*), spikeweed (*Centromadia pogens*), alkali mallow (*Sida hederacea*), alkali heath (*Frankenia grandiflova*), and alkali blite (*Suaeda fruticosa*). Pickleweed (*Sarcocornia pacifica*) and bush pickleweed (*Allenrolfea occidentalis*) grow in places.

Weeds are a serious problem in many cultivated areas. Bermudagrass (*Cynodon dactylon*) provides good forage in irrigated pastures and makes a durable lawn in this climate, but it is a pest in fields of row crops and in flower gardens. Johnsongrass (*Sorghum halepense*) is a nuisance, particularly in areas on the river bottoms and in the vineyards and cotton fields on the young alluvial fans. Other pests are star thistle (*Centaurea solstitialis*), puncturevine (*Tribulus terrestris*), particularly along the shoulders of roads in sandy soils, sandbur (*Cenchrus pauciflorus*), Russian thistle (*Salsola Kali*, var. *tenuifolia*), mustard (*Brassica* sp.), and fiddleneck (*Amsinckia* sp.). These weeds can be controlled in places by cultivation, and others more effectively by weed killers. Tule and cattails cause trouble in ricefields and in places along irrigation and drainage ditches. The Fresno County Agricultural Commissioner can be consulted for help in the control of weeds. Information also is available from the office of the Fresno County Farm Advisor.

VEGETATION IN THE FOOTHILLS - In the foothills the vegetation ranges

from open annual grasses at low elevations, where rainfall is fairly low, to trees and elevations, where rainfall is fairly low, to trees and grass or trees and shrubs at high elevations, where rainfall is higher. The annual grassy vegetation is similar to that on the terraces that are not cultivated. Filaree and soft chess are dominant. Ripgut (*Bromus rigidus*) is common in places. In protected places a few clusters of perennial grasses such as needlegrass (*Stipa* sp.) grow. Burclover and wild oats are abundant, particularly on the finer textured soils.

The principal trees in the wooded areas are blue oak (*Quercus douglassii*), interior live oak (*Quercus wislizenii*), and California buckeye (*Aesculus californica*). Digger pine (*Pinus sabiniana*) is common north of the Kings River, but only a few single trees grow along part of the south shore of Pine Flat Reservoir, and none grow south of the river. The main trees at higher elevations are canyon live oak (*Quercus chrysolepis*) and black oak (*Quercus kelloggii*) oracle oak (*Quercus morehus*) grow in a few places. Islands of commercial conifers, mainly ponderosa pine (*Pinus ponderosa*), but that includes some incense-cedar (*Libocedrus decurrens*), are near Miramonte. Cottonwoods, sycamores, alders (*Alnus* sp.), and willows grow along many of the streams.

The shrub or chaparral cover consist mainly of wedgeleaf ceanothus (*Ceanothus cuneatus*), chaparral whitehorn (*Ceanothus leucodermis*), mariposa manzanita (*Arctostaphylos mariposa*), birchleaf mountain-mahogany (*Cercocarpus betuloides*), poison oak (*Toxicodendron diversilobum*), California red bud (*Cercis occidentalis*), and California yerba santa (*Eriodictyon californicum*). A rare endemic shrub, California Carpenteria (*Carpenteria californica*) grows on the east slope of Black Mountain near Auberry.

WILDLIFE

Large herds of antelope and tule elk once roamed Fresno County, and

the San Joaquin River had a fine run of salmon. These are now gone. The area still has quite a variety of wildlife, however, and the potential for developing and maintaining it is good.

Most of the soils in the area produce food and cover for many kinds of wildlife. Some kinds of wildlife like open areas near farms; others prefer brushy and wooded areas; and some require a water habitat.

A summary of the food and habitat needs of the more important kinds of wildlife in the Eastern Fresno Area follows.

WATERFOWL - Waterfowl are found chiefly in the basin areas and in the foothills near reservoirs. In the past, basin soils, such as the Merced, were flooded each winter and the areas furnished wintering habitat for many ducks, geese, and sandhill cranes. When these soils were reclaimed and planted to barley and rice, the crops were damaged considerably each year when the birds returned to their ancestral wintering grounds. This problem has largely been eliminated by establishing reserves, such as the Mendota Wildlife Management Area, where ample food and water are provided for the birds. Most of the birds use the refuge areas and leave the ricefields alone. In many years after the rice is harvested, winter rains may flood the fields and make them suitable habitats again for the birds.

Reservoirs in the foothills attract large numbers of Canada geese each year in winter. These birds fan out from the lakes to feed in pastures and on the stubble in fields on San Joaquin, Ramona, and associated soils of the low alluvial terraces; and on the Blasingame, Fallbrook, Vista, and other nearby grass areas on soils of the lower foothills.

Several duck clubs are in the county, chiefly on saline-alkali soils of the basin rim, such as those of the Fresno and Waukena series. Use of such soils for waterfowl habitat might be considered one of the best uses that those soils are capable of supporting. Shallow ponds generally can

be built with a minimum of land leveling and the use of contour levees.

The levees are put in at a contour interval of 0.3 of a foot up to as much as 1 foot. Water for the ponds is available from deep wells or from the Mendota Pool, but drainage water of poor quality (up to 5,000 parts per million of salt) can be used. Plants that are moderately salt tolerant, such as watergrass or millet and nodding smartweed, can be grown.

Alkali bulrush is suited to soils that are extremely saline. It tolerates soil salinities up to about 70 millimhos.

The ducks that generally remain to nest in the Eastern Fresno Area are the wood duck, which nest chiefly along streams of the foothills, and the cinnamon teal. A few fulvous tree ducks also nest in the Area.

PHEASANTS - Chinese ring-necked pheasant, an introduced bird, can be found throughout most cultivated areas of the Area. Moderate numbers of this bird live in the basin where rice is grown, on such soils as the Merced and Temple. An equal number frequent the young fans of the rivers, where crops such as alfalfa, sugar beets, corn, grain sorghum, and irrigated pasture are grown, on the Hanford, Hesperia, and associated soils. Growing a single crop on large tracts, clean cultivating, and the long dry summers in the Area tend to limit the number of pheasants. As a result, many pheasants are propagated in game farms and released to private individuals for hunting on property owned by pheasant clubs.

QUAIL - Early farming practices in the county improved the habitat for valley quail, and their number increased considerably. The cereal grains planted by the farmers, as well as annual weeds, produced an abundance of seed for the quail. The orchards and vineyards set out by the farmers provided additional cover. As farming became more intensive, however, clean cultivating and the growing of a single crop on large tracts caused the

habitat suitable for quail to dwindle. Now quail are throughout much of the survey area in scattered coveys. Some are even in the residential areas of the city of Fresno. Quail are most abundant in the chaparral of the upper foothills in areas of Ahwahnee, Auberry, Coarsegold, Sierra, Trimmer, and associated soils and along the streams in the valley.

Habitat can be developed successfully for quail on most soils in the survey area. Hedgerows of quailbush planted along canals and drainage ditches provide suitable habitat for quail on such basin soils as the Merced and Temple. Generally a supply of water and a few clumps of blackberries, multiflora rose, or quailbush are all that are needed to keep quail on a farm on the Chino, Grangeville, and associated soils of the recent alluvial fans and flood plains, and on Exeter, Ramona, and San Joaquin soils of the terraces. The woody plants should be placed near olive trees and other places where the quail like to roost. A place where drinking water can be obtained year-round should be provided.

On areas of oak and grass in the lower foothills, on such soils as the Fallbrook, Tivy, and Vista, dense ground cover and water are in short supply. In many places the oak can be harvested and the resulting brush placed in piles to provide cover for quail. The trunks of the trees can be sold for firewood. The small, loosely stacked brush piles generally last for 5 years, then the thinning process must be repeated. Water for quail can be provided by stock ponds, troughs, seeps, or springs. A brush pile or hegerow must be placed nearby for protection.

In the upper foothills, where the average annual rainfall is 20 inches or more, brush is quite dense and extensive. Here such quail food as burclover, filaree, and fiddleneck are scarce but water is fairly abundant. The habitat can be improved for quail on brush-covered areas of

Ahwahnee, Auberry, and Sierra soils by opening up the stands to make room for annual grasses, legumes, and forbs. Clearing strips 300 feet wide and leaving strips of brush 30 to 50 feet wide across the slope opens up the brushy areas. Generally it is more practical, however, to clear a field completely of brush, except for areas of rock outcrops. Then the brush can be placed in small, loose piles, and the excess piles can be burned. The remaining brush piles provide escape cover for quail. By the time the piles disintegrate, enough of the brush has sprouted to take care of the needs of the birds. On the cleared areas, 4 pounds of Blando brome and 15 pounds of Lana vetch per acre should be planted.

Mountain quail are in the uplands on such soils as the Holland, Shaver, Sierra, and Tollhouse. They generally frequent steep, brushy slopes and are not so readily managed as the valley quail.

Good quail hunting habitat is much in demand by hunters in the Area. The leasing of quail hunting rights of soils with well-developed quail habitat therefore can be a good source of income to a rancher or farmer.

DOVES AND PIGEONS - Mourning doves frequent all parts of the survey area. They are most abundant in areas of Ramona and San Joaquin soils on old alluvial terraces; in areas of Blasingame, Fallbrook, Millerton, Tivy, and Vista soils in the low foothills; and in areas of Grangeville and Visalia soils along streams in valleys.

Bandtailed pigeons prefer the upper foothills, where the Auberry-Ahwahnee, the Coarsegold, and the Trimmer-Trabuco soil associations are located. In summer they nest in stands of conifers on soils of the Aiken, Holland, and Shaver series. In winter the number of bandtailed pigeons increases because migrants from further north come to the Area. They feed upon acorns, pine nuts, berries, and the like, and are likely to damage

newly planted barley, young fruit trees, and grapes.

DEER - California mule deer live mainly on the upland soils of the survey area, and a resident herd lives in the foothills where there is enough brush to give them cover. In winter migrants from higher elevations come to the upper reaches of the foothills. The Ahwahnee, Auberry, and Tollhouse soils support stands of brush that are much used by deer for winter range. Important species in these stands are wedgeleaf ceanothus, birchleaf mountain-mahogany, mariposa manzanita, chaparral whitethorn, redbud, and flannelbush.

Mature stands of dense brush do not provide good habitat for deer. Most of the new growth is too high for the deer to reach, and few grasses and forbs grow in the understory. Dense stands are difficult for deer to penetrate, and if extensive, are a serious fire hazard. Brush control is needed.

In most areas in brush, suitable soils can be converted to grass or strips can be cleared in the brush to make the areas suitable habitat for deer. A few small patches of brush should be left standing. On steep slopes wide firebreaks, or browseways, are needed to break up large stands of brush and provide access routes.

Deer are a depredation hazard to farmers in the foothills. They like to browse in new orchards, vineyards, berry patches, and permanent pastures, or on Christmas tree farms. In establishing any of these, a deer-proof fence will be needed because it is nearly impossible to keep the deer from eating the lush, tender new growth.

FURBEARERS - Within the survey area, mountain lion, black bear, and bobcat are at the higher elevations in the foothills. Coyotes are common in the foothills and in places on the basin rim on saline-alkali soils.

They particularly prefer the undeveloped areas of Fresno, Pond, and Traver soils. Raccoons live along the watercourses, and ringtailed cats prefer wooded areas along streams and in the foothills. The opossum, an introduced species, and striped and spotted skunks live in both the valley and the foothills. Many skunks live in the entrenched valleys of rivers in areas of Grangeville and Hanford soils, as well as in areas of Tujunga soils and Riverwash. They are likely to carry rabies, and for this reason the areas they frequent are quarantined at times. Badgers prefer the valleys, especially areas on recent alluvial fans and flood plains. They also have been found in less intensively developed areas of Pollasky, Ramona, and San Joaquin soils of the terraces. Beavers live along some streams in the foothills, and a few of them live in the valley where they damage canals and levees. Beaver can be taken at any time in the valley to prevent such damage. Muskrats, which only recently have been found in the Area, can also be taken at any time.

Ground squirrels are quite common throughout the survey area. They generally can be kept under control by the use of poison bait. The pocket gopher is also found throughout the survey area. This animal is most numerous on some of the San Joaquin soils near Pinedale where "mima mounds," or hogwallow microrelief, are particularly well developed. Owls, hawks, badgers, and other predators help to keep these rodents under control, though generally there are not enough predators to be effective. The most effective control measure on farmland is the use of a mechanical gopher-bait dispenser.

Many black-tailed jackrabbits frequent the valley lands of the Eastern Fresno Area. When natural predators, such as the coyote and golden eagle are lacking, these rabbits become overabundant and cause damage to alfalfa

and to orchard crops. In some areas rabbit drives are necessary for control. The cottontail rabbit also is common in the Eastern Fresno Area but seldom becomes a nuisance. The western gray squirrel is in the upper wooded foothills on Aiken, Holland, Shaver, and Sierra soils, but the number is spreading slowly out into the Area from Roeding Park in the city of Fresno.

BIRDS - Some of the more common birds in the survey area are the yellow-billed magpie, the mocking bird, the California jay, the California woodpecker, and, the western meadow lark. Brewer's blackbird and the house finch, or linnet, are also numerous. They may cause damage to fruit and seed crops and have to be controlled. A new arrival in the area is the starling. It may become a serious pest in the orchards and vineyards. In the terraces and foothills, especially in winter, are many large hawks, such as the redtailed hawk and rough-legged hawk. These feed on ground squirrels, gophers, and jackrabbits that frequent rangeland. A few golden eagles also are seen. Turkey vultures are common throughout the Area

FISH - There are many farm ponds and reservoirs for irrigation and for watering stock in the Eastern Fresno Area. Many of these are stocked with largemouthed blackbass and bluegill or with redear sunfish and furnish food and recreation to many. The California Department of Fish and Game generally can supply the initial stock of bass and bluegill for such ponds. These fish can also be purchased from private breeders. Trout can be planted in ponds at the higher elevations of the foothills where the water temperature does not often rise above 70° F. These fish must be purchased, however, and they generally have to be restocked every other year.

OBJECTIVES AND RECOMMENDATIONS

In order to plan the proper utilization and preservation of our existing natural resources, a set of objectives and recommendations must be

FIGURE 18



FIGURE 19



FIGURE 20

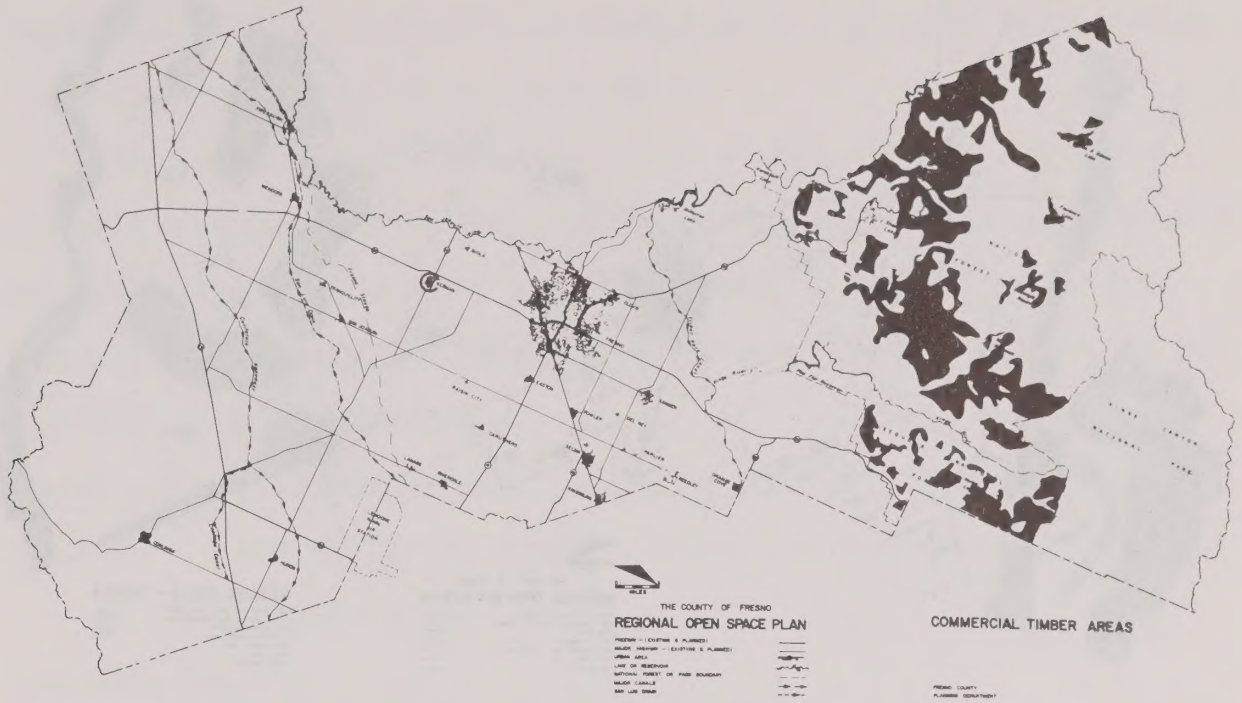


FIGURE 21

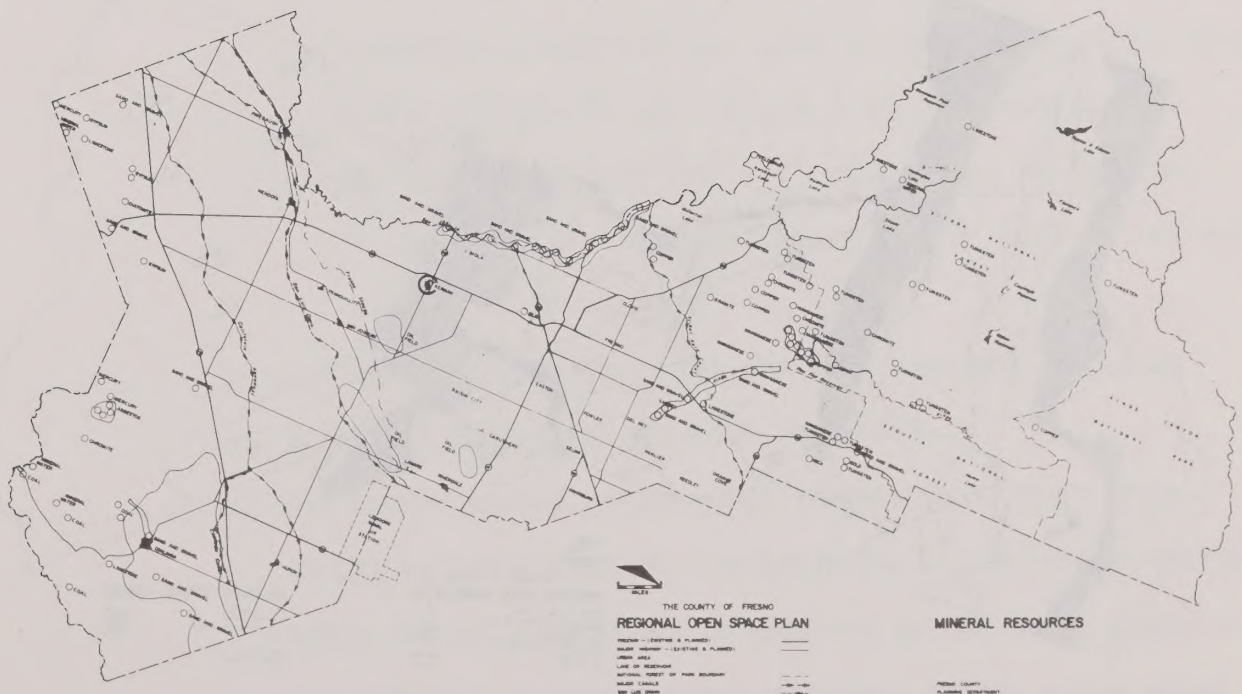


FIGURE 22.

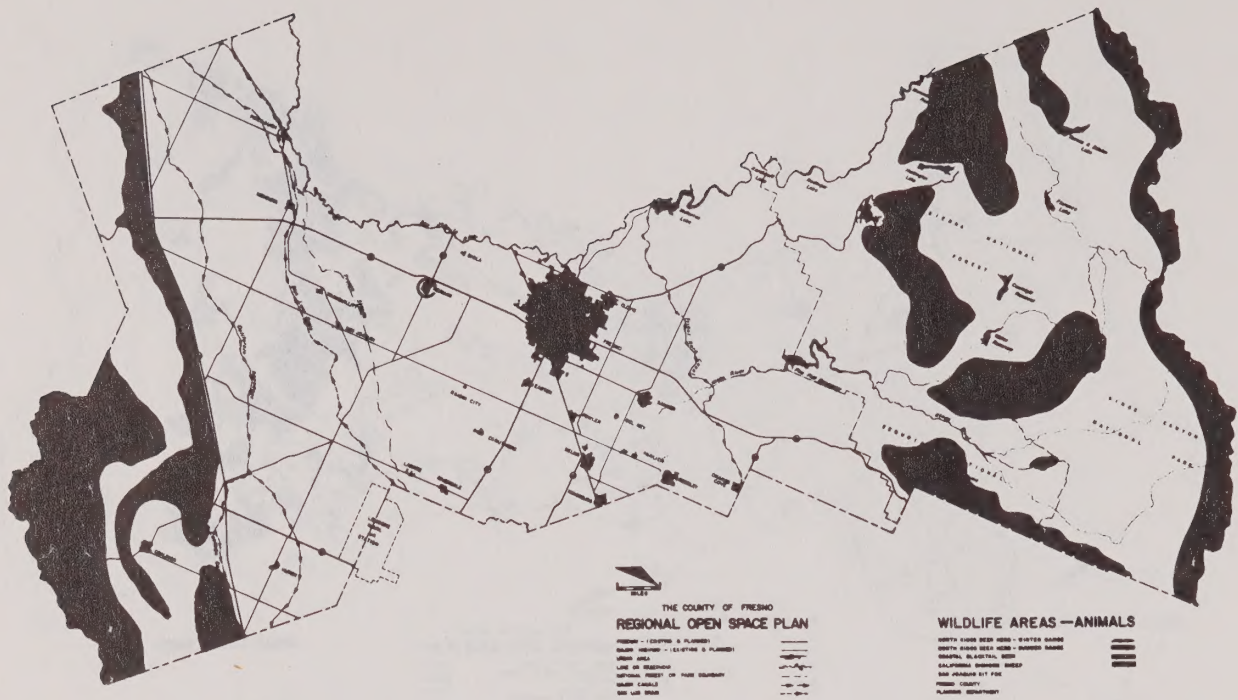


FIGURE 23



toward products with higher income elasticities as disposable income increase. It is expected that this will accelerate a shift within the region from production of cotton and grains to production of high value fruit, nut and vegetable crops, and livestock production.

The available land within the region is adequate to maintain the Region's preeminence in agricultural production if appropriate conservation measures are applied to limit land lost to other uses, preserving those lands which can be brought into production, or production increased by the application of new technology.

OBJECTIVE: CONSERVE AND MANAGE AGRICULTURE AREAS WITH EMPHASIS ON THOSE LANDS WHICH HAVE FAVORED COMBINATIONS OF SLOPES, CLIMATE, AND SOIL CONDITIONS.

RECOMMENDATIONS

1. COMMERCIAL AGRICULTURAL LANDS SHOULD BE DEFINED AND RESERVED EXCLUSIVELY FOR THIS FUNCTION.
 - A) SUCH A POLICY MUST RECOGNIZE THE DEMAND FOR URBAN AND SUBURBAN DEVELOPMENT AND REFLECT COORDINATION WITH MUNICIPAL GOVERNMENTS AND DEFINED DEVELOPMENT STANDARDS.
 - B) ALL COMMERCIAL AGRICULTURAL LANDS SHOULD BE INCLUDED IN THE COUNTY'S WILLIAMSON ACT PROGRAM UNTIL AN IMPROVED PROGRAM IS DEVELOPED.
2. THE BROADSCALE AGRICULTURAL PRESERVE BOUNDARY SHOULD BE REDEFINED CONSISTENT WITH THE PRECEDING.
3. THE COUNTY SHOULD DEFINE THOSE AGRICULTURAL AREAS WHICH SHOULD BE GIVEN PRIORITY FOR DIFFERENTIAL ASSESSMENT IN THE EVENT THE WILLIAMSON ACT IS MODIFIED BY THE STATE LEGISLATURE.
4. THE CREATION OF AGRICULTURAL PRESERVES WITHIN URBAN AREAS

SHOULD BE ENCOURAGED IF SUCH PRESERVES PROVIDE GREENBELTS OR BUFFERS BETWEEN DEVELOPMENTS OR INCOMPATIBLE URBAN USES.

5. PRECISE AGRICULTURAL ZONING SHOULD BE ESTABLISHED ON ALL COMMERCIAL AGRICULTURAL LAND. THIS ZONING SHOULD PRESCRIBE APPROPRIATE LOT SIZES WITH A MINIMUM OF TWENTY ACRES.

ANIMAL PRODUCTION

The demand for meat will grow, intensifying the demand for grazing land. Existing land devoted to grazing is already at capacity under present management practices. Even with optimum utilization of grazing lands under improved management and no further encroachment by other uses on it, range land will be in short supply. Current practices of finishing beef production in feed lots will continue, and expand, to satisfy meat demands for the local region and burgeoning State population.

OBJECTIVE: CONSERVE AND MANAGE LANDS USED FOR ANIMAL PRODUCTION

RECOMMENDATIONS

1. GRAZING LANDS ARE IMPORTANT FOR MULTIPLE OPEN SPACE FUNCTIONS INCLUDING WATERSHED AND WILDLIFE HABITAT. THEIR USE FOR GRAZING SHOULD PRECLUDE DEVELOPMENT.
2. THESE LANDS SHOULD BE INCLUDED IN AGRICULTURAL PRESERVES AND OWNERS ENCOURAGED TO ENTER INTO CONTRACTS LIMITING THE USE TO THIS "AGRICULTURAL" PURPOSE.

MINERAL RESOURCES

Petroleum, the largest fuel commodity in the Fresno Region in terms of value of production, has been decreasing as resources are depleted. The decline is expected to continue with no known prospects for new fields. The production of metals is expected to continue at a very low level. The production of non-metals such as sand, gravel, stone and asbestos is

expected to expand as demand both locally and from outside the region increases.

OBJECTIVE: CONSERVE AND MANAGE LANDS USED FOR PRODUCTION OF MINERALS AND PROVIDE FOR APPROPRIATE TRANSITIONAL USES UPON EXHAUSTION OF THE RESOURCES.

RECOMMENDATIONS

1. EXTRACTION OF MINERALS SHOULD FOLLOW A PATTERN WHICH IS COORDINATED WITH OTHER USES AND PLANNED WELL IN ADVANCE. THIS IS PARTICULARLY TRUE OF CONSTRUCTION MATERIALS EXTRACTED IN AREAS WHERE POTENTIAL INCOMPATIBLE DEVELOPMENT IS LIKELY.
2. STANDARDS FOR THE OPERATION AND REHABILITATION OF ALL EXTRACTION OPERATIONS SHOULD BE EXPANDED TO THOSE NOT PRESENTLY COVERED.
3. PRESENT CONDITIONAL USE PERMIT REQUIREMENTS FOR ALL EXTRACTIVE USES SHOULD BE CONTINUED.
4. APPLICATIONS FOR CONDITIONAL USE PERMITS SHOULD BE CAREFULLY INVESTIGATED WITH REGARD TO:
 - A) POSSIBLE HAZARDOUS EFFECTS TO THE ENVIRONMENT.
 - B) POSSIBILITY OF ABANDONMENT WITHOUT RESTORATION.
 - C) POSSIBLE HARMFUL EFFECTS ON FISH AND WILDLIFE.

WATERSHED LANDS

The population, both within the region and outside the region, is expected to increase as is per capita leisure time and disposable income. The effect of these factors on watershed lands will be their intensive use for multiple functions. The increased demand for recreation, food and fiber, and timber will all be expressed by development of these functions

on watershed lands.

OBJECTIVE: CONSERVE AND MANAGE LANDS NEEDED FOR WATER SUPPLY.

RECOMMENDATIONS

1. MUCH OF THE WATER SUPPLY WITHIN THE REGION IS OBTAINED FROM WELLS TAPPING THE GROUND WATER BASIN. POLICIES ARE BEING DEVELOPED IN THE REGIONAL SEWER AND WATER PLAN TO DEFINE THE NEED FOR AQUIFER RECHARGE WHENEVER FEASIBLE. THE AREAS DEFINED SHOULD BE MAINTAINED IN MULTI-FUNCTIONAL OPEN SPACE.
2. WATERSHED AND RECHARGE AREAS SHOULD BE MANAGED IN A MANNER THAT MEETS THE PRIMARY FUNCTION OF OPTIMUM PRODUCTION OF HIGH QUALITY WATER AND ALSO MEETS A NEED IN ONE OR MORE ADDITIONAL FUNCTIONS, FOR EXAMPLE, RECREATION, GRAZING, OR ENERGY PRODUCTION.

TIMBER PRODUCTION

Demand for the timber production land is even more critical than demand for grazing land because no substitute comparable to the feed lot is available. An additional problem is that most of those materials suggested as substitutes for timber products are derived from non-renewable resources. On a state-wide and national basis, the supply of land needed for timber production is likely to be in critically short supply.

OBJECTIVE: CONSERVE AND MANAGE LANDS NEEDED FOR TIMBER PRODUCTION.

RECOMMENDATIONS

1. THE RETENTION OF FORESTED LAND AS AN OPEN SPACE RESOURCE SHOULD BE ENCOURAGED. THOSE PRIVATELY OWNED LANDS WELL SUITED FOR TIMBER PRODUCTION AND NOT NEEDED FOR DEVELOPMENT SHOULD BE SET ASIDE FOR THAT PURPOSE.
2. A PROGRAM FOR CONVERSION OF ALL LAND SUITABLE AND AVAILABLE

FOR TIMBER PRODUCTION, BUT NOW SUPPORTING BRUSH, NONCOMMERCIAL
TIMBER, OR GRASS SHOULD BE PURSUED.

3. THE FULLEST USE OF ALL EXISTING TECHNOLOGY TO MAINTAIN THE
HIGHEST POSSIBLE SUSTAINED YIELD PER ACRE OF TIMBER SHOULD
BE ENCOURAGED.

4. THE FOREST SERVICE SHOULD BE ENCOURAGED TO CONTINUE ITS
POLICIES OF PROTECTION AND MANAGEMENT OF FORESTS.

5. INCENTIVES SHOULD BE PROVIDED TO OWNERS OF PRIVATE
FOREST LANDS TO PRACTICE SOUND CONSERVATION METHODS.

RESOURCE PRESERVATION

Resource preservation lands have value in their natural state. Lands
of this type include marshlands, forest and foothill lands for wildlife
habitats, lakes, reservoirs and streams for fisheries, unique geologic
features such as fossilbeds and significant historical and cultural sites.

FISH AND WILDLIFE RESOURCES

Fish and wildlife habitat have undergone significant changes in the
region as a result of man's demand for land and water to meet the needs of
agriculture, industry, and recreation. The increase anticipated in the human
population will place further demands on land and water resources and thus
wildlife habitat. In addition, the demand for hunting will increase, though
at a lower rate than the rate of population growth. The growth of sport
fishing is expected to increase at a rate in excess of population increase.

OBJECTIVE: CONSERVE AND MANAGE AREAS NEEDED FOR FISH AND WILDLIFE.

RECOMMENDATIONS

1. PROPER MANAGEMENT AND PROTECTION ARE THE ESSENTIAL REQUIRE-
MENTS FOR THE PRESERVATION OF WILDLIFE HABITATS. AREAS
DEFINED AS WILDLIFE LAND SHOULD BE PROTECTED FROM DESTRUCTION,

OVER-USE, OR MISUSE.

2. PRIVATELY OPERATED WILDLIFE MANAGEMENT AREAS SHOULD BE ENCOURAGED. SUITABLE LAND USE CONTROLS TO ASSURE COMPATIBILITY OF ADJACENT USES SHOULD BE INSTITUTED.
3. CAREFUL CONSIDERATION SHOULD BE GIVEN TO THE IMPACT OF OTHER OPEN SPACE FUNCTIONAL TYPES ON WILDLIFE HABITATS.
4. A SOUND PROGRAM OF WILDLIFE MANAGEMENT AND PROTECTION SHOULD BE INSTITUTED TO PREVENT ENVIRONMENTAL DAMAGE FROM CORRECTIVE MEASURES INSTITUTED WITHIN WATER COURSES.
5. THE HABITAT OF RARE OR ENDANGERED SPECIES SHOULD BE PRESERVED IN A NATURAL STATE TO THE MAXIMUM POSSIBLE EXTENT.
6. MARSHES, PARTICULARLY THOSE IN THE VALLEY TROUGH, SHOULD BE PRESERVED AS ESSENTIAL HABITAT FOR BIRDS AND WILDLIFE.
7. THE FURTHER CONVERSION OF WETLANDS TO CROPLAND SHOULD BE SUBJECT TO A PERMIT. THE ISSUANCE OF A PERMIT SHOULD BE BASED ON AN EVALUATION OF THE EFFECT OF THE CONVERSION ON EXISTING WILDLIFE.
8. A MORE DETAILED STUDY OF WILDLIFE LANDS SHOULD BE COMPLETED IN ORDER TO PROVIDE AN ADEQUATE BASIS FOR EVALUATING ALL DEVELOPMENTS.

OBJECTIVE: SET ASIDE SELECTED AREAS OF FOREST, MARSH, WOODLAND AND GRASSLAND TO PRESERVE ECOLOGIC AND BIOTIC SYSTEMS FOR RESEARCH AND EDUCATIONAL PURPOSES.

RECOMMENDATIONS

1. THE FOREST SERVICE SHOULD BE ENCOURAGED TO CONTINUE ENFORCEMENT OF POLICIES FOR PRESERVATION OF EXISTING FOREST CONDITIONS.
2. EFFORTS TO EXTEND GRAZING OR FARMING ACTIVITY INTO PUBLIC

LAND AREAS OR MARSHLANDS SHOULD BE SUBJECT TO A PERMIT THAT CAN BE ISSUED WHEN EVALUATION OF ACTIVITIES ENSURES MAINTENANCE OF EXISTING RESOURCE.

OBJECTIVE: PRESERVATION OF SIGNIFICANT HISTORIC AND CULTURAL SITES.

RECOMMENDATIONS

1. A HISTORICAL LANDMARK PLAN SHOULD BE PREPARED AND OFFICIALLY ADOPTED AS A PORTION OF THE GENERAL PLAN. THE PLAN SHOULD INCLUDE:
 - A) A COMPLETE INVENTORY OF EXISTING HISTORICAL LANDMARKS AND OF ALL UNMARKED HISTORIC STRUCTURES AND SITES HAVING MAJOR SIGNIFICANCE.
 - B) A PRIORITY SYSTEM FOR THE ESTABLISHMENT AND PROTECTION OF HISTORIC SITES.
2. A COMMITTEE, SUCH AS THE HISTORICAL LANDMARK'S ADVISORY COMMITTEE OR THE FRESNO COUNTY HISTORICAL SOCIETY, SHOULD SERVE AS ADVISORS ON THE ESTABLISHMENT OF HISTORIC SITES.

PUBLIC SAFETY

The demand for land both for urban expansion and rural recreational or speculative land developments will result in proposals in areas which are hazardous. Demand for urban expansion is determined by population and income within the region. Demand for recreational and speculative land is to a substantial extent external to the region. It will not be sufficient merely to exclude development from hazardous areas. Areas which are suited to each of these development types should be defined.

OBJECTIVE: PRESERVE FLOOD PLAINS FREE OF URBAN DEVELOPMENT

RECOMMENDATIONS

1. ALL AREAS WITHIN THE 100-YEAR OR 1% FLOOD PLAIN SHOULD

BE OFFICIALLY DESIGNATED AND CONTROLS ON THE MAGNITUDE AND TYPE OF DEVELOPMENT IMPLEMENTED TO INSURE: MINIMAL FLOOD DAMAGE, MINIMAL COST OF FLOOD CONTROL FACILITIES, MAINTENANCE OF THE PLEASING VISUAL QUALITY OF THE WATER COURSE ENVIRONMENT.

2. A PROGRAM OF ACQUISITION OF KEY FLOODWAY PROPERTIES, EITHER BY EASEMENT OR FEE TITLE, SHOULD BE FORMULATED AND MADE PART OF THE OVERALL CAPITAL IMPROVEMENTS PROGRAM.
3. AN ADEQUATE POLICING AND MAINTENANCE PROGRAM SHOULD BE EMPLOYED TO INSURE THAT FLOOD PLAINS ARE NOT ABUSED OR BECOME A NUISANCE TO THE PUBLIC OR ADJOINING PROPERTY OWNERS.
4. FLOOD PLAIN AREAS, WHEREVER APPLICABLE, SHOULD BE INTEGRATED WITH REGIONAL RECREATION PROGRAMS.
5. CONTINUATION OF AGRICULTURAL USES IN DESIGNATED FLOOD HAZARD AREAS OF THE REGION SHOULD BE ENCOURAGED. AGRICULTURAL PRESERVE CONTRACTS SHOULD BE AVAILABLE FOR VIABLE FARMING OPERATIONS IN THESE AREAS, EVEN IF THEY ARE WITHIN URBAN AREAS.
6. OPEN SPACE AND SCENIC EASEMENTS SHOULD BE AVAILABLE TO PROPERTY OWNERS WHERE HAZARDOUS CONDITIONS EXIST.
7. IMPROVEMENT TO WATER COURSES FOR FLOOD CONTROL PURPOSES SHOULD BE MADE ON THE BASIS OF WELL-PLANNED AND PROPERLY EMPLOYED STANDARDS FAVORING ENVIRONMENTAL AND ECOLOGIC CONSIDERATIONS.
8. NON-STRUCTURAL FLOOD MANAGEMENT SHOULD BE EMPHASIZED IN FLOOD CONTROL.

8

THE OPEN SPACE ELEMENT

WHAT IS OPEN SPACE?

Open space, in a negative sense, is simply land which has not been converted to urban development. From a more positive standpoint, open space is land where basic natural values have been retained. Under this broad category, open space can include wilderness areas as well as a small park in the heart of a city. In all cases, however, the definition is relative; the key to defining open space is its contrast with a more densely populated or built-up area. An area of scattered rural residences would appear to be open space if it were surrounded by apartment buildings, but would detract from open space qualities in a wilderness area.

FUNCTIONS OF OPEN SPACE

The value of open space can be viewed in several ways, according to its function.

- (1) OPEN SPACE CAN HAVE A *PRODUCTIVE* FUNCTION, OPEN LANDS CAN BE USED FOR AGRICULTURE, FORESTRY, OR WATER SUPPLY.
- (2) LANDS LEFT IN OPEN SPACE CAN HAVE A *PROTECTIVE* FUNCTION. PUBLIC SAFETY MAY BE INVOLVED, AS IN THE CASE OF FLOODPLAINS. OTHER AREAS MAY BE RESERVED AS OPEN SPACE FOR REASONS OF PUBLIC HEALTH, WELFARE, AND SAFETY. DEVELOPMENT CAN BE RESTRICTED IN WATERSHEDS, FOR EXAMPLE, TO MAINTAIN THE QUALITY OF A WATER SUPPLY. THE PROTECTIVE FUNCTION OF OPEN SPACE ALSO INCLUDES ENVIRONMENTAL PRESERVATION.
- (3) OPEN SPACE CAN HAVE A *STRUCTURAL* FUNCTION. PORTIONS OF THE PLANNING AREA CAN BE LEFT IN OPEN SPACE TO SHAPE AND GUIDE DEVELOPMENT, AND TO PROVIDE SEPARATIONS BETWEEN CONFLICTING LAND USES.
- (4) THERE CAN BE A *RECREATIONAL* FUNCTION OF OPEN SPACE. PARKS ARE NEEDED, AS WELL AS AREAS FOR RECREATION TRAVEL, SCENIC HIGHWAYS, TRAILS, AND WATERWAYS.
- (5) OPEN SPACE OFTEN HAS A *SCENIC* FUNCTION. PROMINENT NATURAL LANDMARKS, FORESTS, AND OTHER NATURAL FEATURES PROVIDE VISUAL RELIEF TO THE CONCRETE AND GLASS OF URBAN AREAS.
- (6) BUT BY NO MEANS THE LEAST IMPORTANT, IS THE

PSYCHOLOGICAL FUNCTION SERVED BY OPEN SPACE.
NOTHING MAN-MADE OR ARTIFICIAL CAN PROVIDE THE
SAME SENSE OF BEING OR ORGANIC WHOLENESS AS THE
NATURAL DYNAMICS OF BIOLOGIC AND LAND PROCESSES
EVOLVING.

These functions or values of open space do not usually occur separately; several categories often overlap. A wooded stream course, for example, has protective value as a flood channel, as well as recreational and scenic value. This *MULTIPLE-VALUE CONCEPT* of open space must be emphasized. While some uses, such as mining or urban development, can destroy the overall value of open space, other uses can exist in harmony. Well managed agricultural land can have great scenic value, for example. In any government action to improve one of the functions of open space, care should be taken that the other values are not damaged or destroyed.

THE OPEN SPACE ELEMENT

An Open Space Element of Kerman's General Plan is required by State legislation. Prior to this time, proposals dealing with open space in the City, County, and State had to be handled on a *piecemeal* basis. The Fresno County Planning Department, under contract with the Council of Fresno County Governments, has prepared the "Regional Open Space Plan." With the adoption of an Open Space Plan, a framework is established for effective open space planning in the county. Thus the City of Kerman will endeavor to work within the regional framework for the mutual benefits that are offered to its citizens.

The close relationship between the Open Space Element and the other Elements of the General Plan should be emphasized. The Conservation Element will deal with maintaining the quality of the county's resources, and thus is closely linked to the Open Space Element. The Land Use Element will integrate open space proposals with urban land use proposals in the

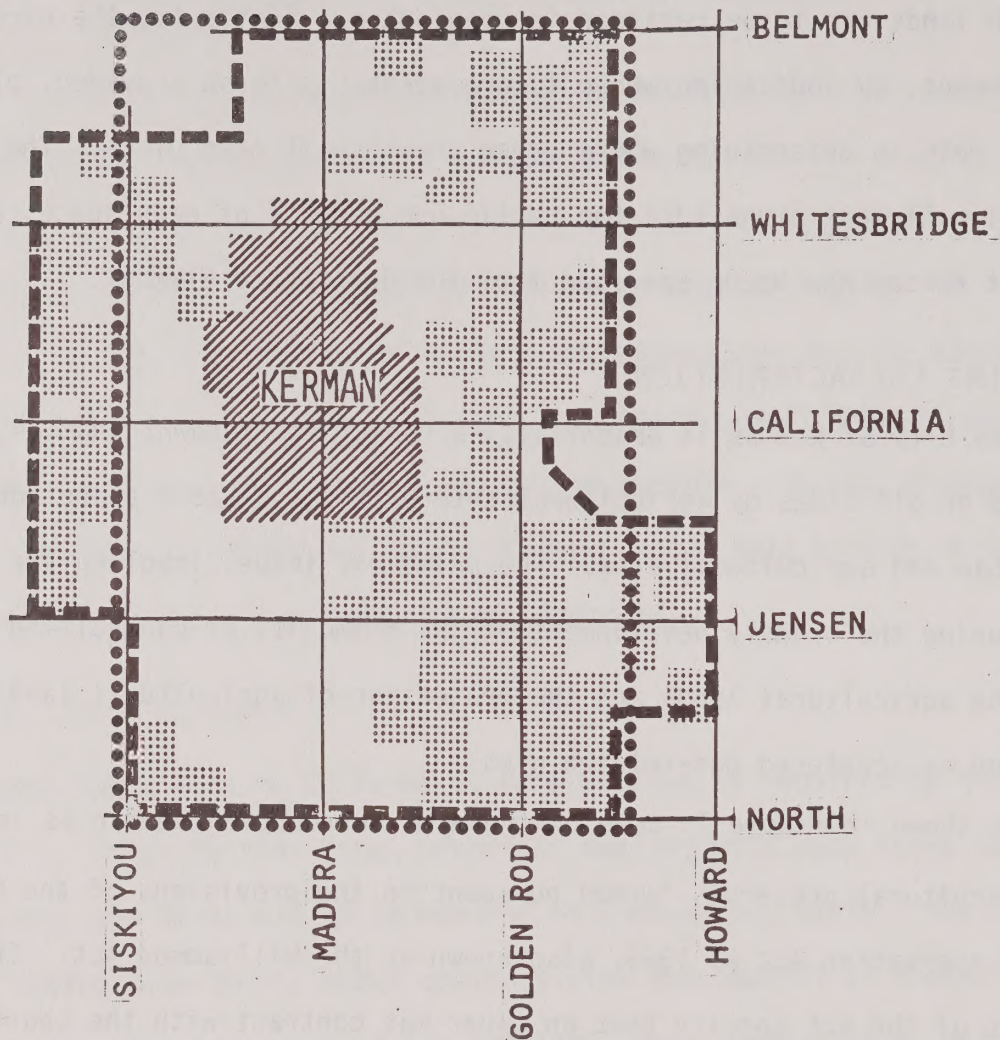
county, by designating areas where public services will be provided. The Public Buildings Services and Facilities Element is a vital determinant of which lands are to be retained in open space. Similarly, the circulation element, by indicating where future access is to be provided, plays a major role in determining where urban growth will take place. The Recreation Element emphasizes the public use aspects of open space, and for that reason has been separated from the Open Space Element.

EXISTING CHARACTERISTICS

The City of Kerman is essentially a "*GREEN BELT*" town; that is, it is bounded on all sides by agricultural enterprises and has a sharp edge between the urban and agricultural area. The principal issues involved are those of ensuring the orderly development of the community by controlling expansion into the agricultural lands and the protection of agricultural lands from invasion by scattered non-related uses.

As shown in Figure 1, some of the area surrounding Kerman is included in agricultural preserves formed pursuant to the provisions of the California Land Conservation Act of 1965, also known as the Williamson Act. The provisions of the act specify that an owner may contract with the county to keep his land in agricultural use for a minimum period of ten years, and thereby have his property assessed only at its value for agriculture. He thus avoids paying increased taxes based on land speculation. When preserves are formed within one mile of city limits, the community has an opportunity to formally protest the action with documented justification. By so doing, the community receives the option of later annexing the land and, upon annexation, cancelling the contract so that development may proceed. This provides an extremely effective planning tool in that it prevents the development of agricultural land under contract until such time as a

FIGURE 1
LAND UNDER WILLIAMSON ACT CONTRACT
WITHIN AN AGRICULTURAL PRESERVE*



- AGRICULTURAL PRESERVE BOUNDARY
- PLANNING AREA BOUNDARY
- LAND UNDER CONTRACT


 NORTH
 1"=1 MILE
 9-73

*Specific contractual information can be obtained by contacting the
Fresno County Planning Department

city is ready to provide services.

GOALS

The open space system for the Fresno County region is directed toward accomplishment of the following goals:

TO PRESERVE AND PROTECT THOSE OPEN SPACE RESOURCES THAT CONTRIBUTE TO THE WELL-BEING OF THE CITIZENS OF THE REGION, THE STATE, AND THE NATION.

TO ESTABLISH THE VALUE OF OPEN SPACE RESOURCES BY RELATING THESE RESOURCES TO THE WHOLE OF THE REGIONAL ENVIRONMENT.

TO INSTITUTE THE CONSIDERATION OF THE IMPACT OF GOVERNMENT AND PRIVATE DECISIONS ON THE OPEN SPACE RESOURCES OF THE REGION.

TO DEVELOP AN ACTION PROGRAM TO MANAGE, CONSERVE AND PROTECT OPEN SPACE RESOURCES.

TO ENCOURAGE MAXIMUM COOPERATION BETWEEN ALL LEVELS OF GOVERNMENT AND PRIVATE ORGANIZATIONS IN THE AREAS OF MANAGEMENT, CONSERVATION AND PROTECTION OF OPEN SPACE RESOURCES.

TO ESTABLISH OPEN SPACE AS A LAND USE, NOT A NON-USE.

The City of Kerman realizes the importance of supporting the regional goals of the county, as should all incorporated communities. In addition they realize the importance of their own open space objectives which are as follows:

OPEN SPACE VALUES MUST BE DEFINED, ANALYZED, AND EVALUATED BY ESTABLISHING THEIR RELATIONSHIP TO THE TOTAL DESIRED CITY ENVIRONMENT AND LIFE STYLE.

SPECIFIC EVALUATION SHOULD PRECEDE ANY GOVERNMENTAL OR PRIVATE DECISIONS WHICH WILL AFFECT OPEN SPACE CHARACTERISTICS.

LOCAL AND COUNTY GOVERNMENTAL MANAGEMENT OF PUBLIC OPEN SPACE LANDS SHOULD REFLECT THE HIGHEST CONCERN FOR PRESERVING OPEN SPACE VALUES.

THE VARIOUS GOVERNMENTAL AGENCIES INVOLVED IN OPEN SPACE PRESERVATION AND MANAGEMENT SHOULD BE CLOSELY COORDINATED.

MAXIMUM COOPERATION BETWEEN GOVERNMENT AND PRIVATE INDIVIDUALS AND ORGANIZATIONS SHOULD BE ESTABLISHED WHEN RELATED TO OPEN SPACE PRESERVATION EFFORTS.

OPEN SPACE SHOULD BECOME AN INTEGRAL PART OF THE LAND USE PATTERN IN THE URBAN AND RURAL AREAS OF THE PLANNING AREA.

PROPERTY OWNERS SHOULD BE ENCOURAGED TO PRESERVE AND MAINTAIN VALUABLE OPEN SPACE LANDS.

THE CITY SHOULD INSURE ORDERLY ABSORPTION OF AGRICULTURAL LANDS INTO THE URBAN PATTERN BY RESTRICTING RESIDENTIAL SUBDIVISIONS WITHIN A REASONABLE DISTANCE BEYOND THE DEVELOPED AREA.

OPEN SPACE PROPOSALS

Proposals for open space in Kerman and the surrounding area will be discussed in terms of six basic categories of open space and the role played by each. Not all of the six categories pertain specifically to Kerman, but it is important for all citizens to better understand open space in general terms. After all, open space contributes to everyone's well-being, even if one has to travel to experience all the various types. Open space when properly or improperly used is costly, so it's important to insure wise use of our open space.

OPEN SPACE FOR MANAGED RESOURCE PRODUCTION

LANDS IN THIS CATEGORY ARE DEVOTED TO AGRICULTURE, MINERAL PRODUCTION, ANIMAL PRODUCTS, AND WATER SUPPLY. THIS IS A KEY AND MAJOR USE IN THE KERMAN PLANNING AREA, NOT ONLY IN TERMS OF LAND AREA BUT ALSO AS AN ELEMENT IN THE ECONOMY. THE STATUS AND FUTURE OF LANDS IN THIS CATEGORY ARE DISCUSSED IN THE LAND USE AND CONSERVATION ELEMENT SECTIONS.

OPEN SPACE FOR PRESERVATION OF NATURAL AND HUMAN RESOURCES

THIS CATEGORY INCLUDES WATER-WETLAND, WOODS AND BRUSHLAND WILDLIFE HABITATS, NOTABLE GEOLOGIC FEATURES, AND HISTORIC AND CULTURAL SITES. THE ONLY NOTABLE FEATURE OF PARTICULAR

SIGNIFICANCE TO KERMAN IS ITS RELATIVELY CLOSE PROXIMITY TO THE SAN JOAQUIN RIVER AND THE FRESNO SLOUGH. THE RIVER IS A HAVEN FOR DUCKS AND PHEASANTS AND THE SLOUGH IS A HAVEN FOR QUAIL AND PHEASANT. THESE FEATURES ARE CLEARLY INDICATED IN THE FRESNO REGIONAL PLAN. GEOLOGIC FEATURES HAVE BEEN EXPLAINED AND COVERED IN THE SEISMIC SAFETY ELEMENT. THE REMAINING CHARACTERISTICS ARE NOT APPLICABLE TO KERMAN'S SITUATION IN RELATION TO THE PLANNING AREA.

OPEN SPACE FOR HEALTH, WELFARE AND WELL-BEING

UNDER THIS HEADING ARE GROUNDWATER PROTECTION AREAS, DISPOSAL SITES, RECREATION AREAS, VISUAL AMENITY AREAS, AND AREAS TO SHAPE AND GUIDE URBAN DEVELOPMENT.

GROUNDWATER PROTECTION IS ACCOMPLISHED BY RECHARGING OF THE BASIN WITH HIGHER QUALITY WATERS, AND ALSO BY PREVENTION OF THE PERCOLATION OF POOR QUALITY WATERS INTO THE BASIN. AREAS OF INTENSIVE AGRICULTURAL DEVELOPMENT SOMETIMES POSE PROBLEMS IN THE MAINTENANCE OF HIGH QUALITY IN GROUNDWATERS DUE TO PUMPING FROM WELLS AND THE PERCOLATION OF SALTS AND CHEMICAL-LADEN AGRICULTURAL WASTE WATERS INTO THE BASIN.

OPEN SPACE HAS NOT BEEN USED CREATIVELY TO SEPARATE LAND USES AND SHAPE URBAN DEVELOPMENT IN AND AROUND THE CITY. FOR INSTANCE, THERE IS NO REAL SEPARATION BETWEEN COMMERCIAL AND RESIDENTIAL USES OR INDUSTRIAL AND RESIDENTIAL USES IN THE OLDER PARTS OF THE CITY. THIS SITUATION IS A PRODUCT OF HISTORY AND IS COMMON IN OLDER CITIES OF ALL SIZES. AS A PART OF POLICY PLANNING FOR THE FUTURE, RESIDENTS MAY WANT TO EMPHASIZE THE DEVELOPMENT AND USE OF POLICIES WHICH BETTER SEPARATE INCOMPATIBLE LAND USES. OPEN OR "BUFFER" SPACES MAY ALSO SERVE AS RECREATION AREAS, VISUAL AMENITY AREAS, CIRCULATION CORRIDORS, ASSEMBLY AREAS, STORAGE AND WATER RECHARGE BASINS AND FOR OTHER FUNCTIONS. (CIRCULATION INFORMATION IS COVERED IN THE CIRCULATION ELEMENT: LAND USE IN THE LAND USE ELEMENT: SOILS IN THE CONSERVATION ELEMENT: DISPOSAL SITES IN THE SOLID WASTE ELEMENT: RECREATION IN THE RECREATION ELEMENT.)

OPEN SPACE FOR PUBLIC SAFETY

THIS CATEGORY INCLUDES FLOOD CONTROL (BASINS, RESERVOIRS, FLOOD PLAINS, ETC.), UNSTABLE SOIL AREAS AND FIRE BREAKS.

LAND DEVOTED TO THIS CATEGORY IS LIMITED TO A STORM DRAINAGE POND.

OPEN SPACE FOR CORRIDORS

INCLUDED ARE POWER TRANSMISSION, WATER DISTRIBUTION AND TRANSPORTATION CORRIDORS.

THESE USES ARE OF MAJOR IMPORTANCE IN THE PLANNING AREA. THE RAILROAD AND PRESENT HIGHWAYS 180 AND 145 USE LARGE AMOUNTS OF LAND, AND WITH PROPOSED PLANS TO REALIGN THE HIGHWAYS EVEN MORE LAND WILL BE USED.

THE CANAL AND LATERAL SYSTEMS DEMAND CONSIDERABLE ACREAGE. THE VARIOUS FUNCTIONAL CORRIDORS ARE THE LIFE-BLOOD OF THE ECONOMY AND LEND VALUE AND RELATIONSHIP TO ADJACENT USE AREAS.

ADEQUATE SETBACKS MUST BE ESTABLISHED AND PRESERVED ALONG HIGH SPEED ROUTES (RAILROADS, FREEWAYS, EXPRESSWAYS, AND MAJOR ARTERIALS) TO INSURE SAFETY AND PERMIT BUFFERING OF NOISE, VIBRATION AND AIR POLLUTION FOR ADJACENT LAND USES, WITHIN THESE CORRIDORS, PROVISIONS CAN BE MADE FOR OTHER MODES OF TRAVEL SUCH AS PEDESTRIAN AND BIKE PATHS AND OCCASIONAL SPECIAL USE AREAS SUCH AS PLAYLOTS, PLAZAS, AND PARKING, STORAGE OR UTILITY SPACES. (THESE CONCEPTS ARE DISCUSSED AND ILLUSTRATED IN THE APPROPRIATE ELEMENT OF THIS REPORT.)

OPEN SPACE FOR URBAN EXPANSION

THIS CATEGORY INCLUDES VACANT PARCELS IN DEVELOPED OR DEVELOPING AREAS HELD FOR EXPANSION OF COMMERCE, INDUSTRY, HOUSING, AND PUBLIC FACILITIES AND SERVICES.

UNLIKE OLDER, LARGE CITIES, KERMAN HAS A GOOD INVENTORY OF CLOSE-IN DEVELOPABLE LAND. UNTIL SUCH TIME AS THE CITY GROWS BEYOND ITS PRESENT BOUNDARIES AND INTO AGRICULTURAL LANDS, EXPANSION SPACE WILL NOT PRESENT A MAJOR PROBLEM. THE PRINCIPAL NEED NOW IS TO ESTABLISH AND DEVELOP PLANS FOR ADEQUATE RIGHTS-OF-WAY FOR ACCESS TO DEVELOPING AREAS.

RECOMMENDATION

OPEN SPACE PLAN RECOMMENDATIONS CAN BEST BE EXPLAINED AND EXPRESSED THROUGH THE REVIEW AND RECOMMENDATION OF OTHER ELEMENTS OF THE CITY'S GENERAL PLAN.

AS PREVIOUSLY EXPRESSED, THE CITY OF KERMAN SHOULD MAKE ALL EFFORTS TO COORDINATE ITS ACTIVITIES WITH THE REGIONAL PLAN, AND WITH THE ORGANIZATION SO CHARGED WITH THE OVERALL RESPONSIBILITY. EVERY EFFORT SHOULD BE MADE TO SECURE OUTSIDE ASSISTANCE WHEN PROCEEDING WITH AN OPEN SPACE PROJECT FOR THE BENEFIT OF ALL PEOPLE.

9

THE SEISMIC SAFETY ELEMENT

INTRODUCTION

California often is referred to as earthquake country. Earthquakes are part of the State's heritage, and those who reside in California must learn to live with them. The historical record of quakes in the State began back in 1769. Few detailed records were kept of earthquakes in California until after 1850 when the State's population began to grow rapidly. By 1900 studies were much more numerous and detailed; unfortunately, community leaders attempted to suppress these studies believing that they would be bad publicity for the community.

State Bill S.B.N. 351, which was recently adopted by the State legislature, requires that all California cities incorporate Seismic Safety Elements into local general plans. The plan must include the following:

"...AN IDENTIFICATION AND APPRAISAL OF SEISMIC HAZARDS SUCH AS SUSCEPTIBILITY TO SURFACE RUPTURES FROM FAULTING, TO GROUND SHAKING TO GROUND FAILURES, OR TO EFFECTS OF SEISMICALLY INDUCED WAVES SUCH AS TSUNAMIS AND SEICHES."

Several of the terms in the law warrant definition:

SEISMIC HAZARDS - THIS REFERS TO THOSE HAZARDS LISTED IN THE LAW WHICH ARE INDUCED BY SEISMIC OR EARTHQUAKE ACTIVITY.

SURFACE RUPTURES FROM FAULTING - THESE ARE BREAKS IN THE GROUND SURFACE RESULTING FROM FAULT MOVEMENT. THE NATURE OF GROUND RUPTURE CAN VARY CONSIDERABLY, DEPENDING ON THE TYPE OF FAULT AND SURFACE MATERIAL. IT MAY CONSIST OF HORIZONTAL OR VERTICAL DISPLACEMENT OR A COMBINATION OF BOTH. THE RESULTS MAY RANGE FROM OPEN CRACKS IN THE GROUND TO FAULT SCARPS OR DEFORMATION OF GROUND SURFACES.

GROUND SHAKING - THIS REFERS TO THE SHAKING OF GROUND AS A DIRECT RESULT OF FAULT ACTION. THE INTENSITY OF SHAKING IS A FUNCTION OF THE DISTANCE OF THE SITE FROM THE EPICENTER OF THE EARTHQUAKE AND TO THE UNDERLYING SOIL AND BEDROCK CONDITIONS. IF THE UNDERLYING MATERIAL IS A HARD ROCK FORMATION, THE SHAKING WILL PROBABLY BE CONSIDERABLY LESS, FOR INSTANCE, THAN IF IT IS A BAY MUD.

GROUND FAILURES - THERE ARE DIFFERENT TYPES OF GROUND FAILURES. SLOPE INSTABILITY AND SOIL LIQUEFACTION ARE TWO EXAMPLES. HILLSIDES MAY BE OF SUCH A STEEPNESS AND OF SUCH MATERIAL THAT A SLIGHT EARTHQUAKE WILL TRIGGER A LANDSLIDE. THIS MAY BE AGGRAVATED BY THE PRESENCE OF GROUND WATER OR SLIP-PLANES. SOIL LIQUEFACTION CAN TAKE PLACE WHEN THE PRESENCE OF WATER IN THE GROUND AND THE SUBSEQUENT SHAKING EFFECT OF

THE EARTHQUAKE CAUSES THE GROUND TO ESSENTIALLY TURN TO LIQUID AND LOSE ITS STRENGTH. THIS IS A PRIME CONCERN IN MARSH AND TIDELANDS.

TSUNAMIS - TSUNAMIS ARE SEA WAVES WHICH ARE INDUCED THROUGH EARTHQUAKE ACTIVITY. THESE ARE A CONCERN IN COASTAL AREAS.

SEICHES - THIS TERM REFERS TO THE SLOSHING EFFECT IN ENCLOSED BODIES OF WATER CAUSED BY AN EARTHQUAKE. THESE ARE PARTICULAR CONCERN AROUND LARGE LAKES, DAMS OR BAYS.

The effect of an earthquake in a local area may include only one of the foregoing phenomena or it may include a combination of them.

APPLICATION TO THE CITY OF KERMAN

The California State Department of Conservation - Division of Mines and Geology has prepared a seismic safety information package for cities and counties concerned with developing Seismic Safety Elements. Most of the assembled information is general and statewide.

Five maps have been selected to better understand seismic activity:

1. PROVISIONAL FAULT MAP OF CALIFORNIA.
2. PROVISIONAL FAULT MAP ENLARGEMENT INCLUDING THE FRESNO COUNTY AREA.
3. EARTHQUAKE INTENSITIES IN THE FRESNO COUNTY AREA FROM 1810-1969.
4. PRELIMINARY EARTHQUAKE EPICENTER MAP OF THE FRESNO COUNTY AREA FROM 1934-1971.
5. UNSTABLE GEOLOGY - FRESNO COUNTY, PREPARED BY THE FRESNO, COUNTY PLANNING DEPARTMENT IN CONJUNCTION WITH THE FIRST YEARS REPORT OF THE REGIONAL OPEN SPACE PLAN.

Two items within the guidelines were not given consideration in this report, tsunamis and seiches, because the City is a considerable distance from the coast and no major open reservoirs are within the immediate area.

The maps clearly indicate that Fresno County is *relatively* free of seismic activity. This is not to say that planning can stop as no area in California is really immune to the possibility of an earthquake.

FIGURE 1
PROVISIONAL FAULT MAP OF CALIFORNIA



FIGURE 2
PROVISIONAL FAULT MAP OF FRESNO COUNTY



Solid line where location is well defined; dashed line where approximate or inferred; dotted where concealed by younger rocks or under lakes or ocean.

- Historically active fault associated with one or more of the following:

 - a. a record earthquake with surface rupture (date of latest movement indicated).
 - b. tectonic creep--slow ground displacement usually without accompanying earthquakes.
 - c. displaced surveyed lines.
 - d. seismic activity--alignment of earthquake epicenters (including microearthquakes).
- Quaternary displacement, without historic record. Recognized by displaced alluvium, terraces, or other Quaternary units; offset streams; alignment of sag ponds, trenches, or saddles. Includes concealed fault-controlled ground water barriers or cascades in Quaternary sediments as indicated by water well data.
- Fault without recognized Quaternary movement.

FIGURE 3
EARTHQUAKE INTENSITIES 1810-1969



MAP SYMBOL	NUMBER OF TIME LOCALITY HAS EXPERIENCED INTENSITIES VI, VII, OR VIII, FROM 1810 TO 1969
A	1 TO 5
B	6 TO 10
	SOLID CONTOUR LINES - ERRORS LESS THAN 5 MILES
	DASHED CONTOUR LINES - ERRORS GREATER THAN 10 MILES

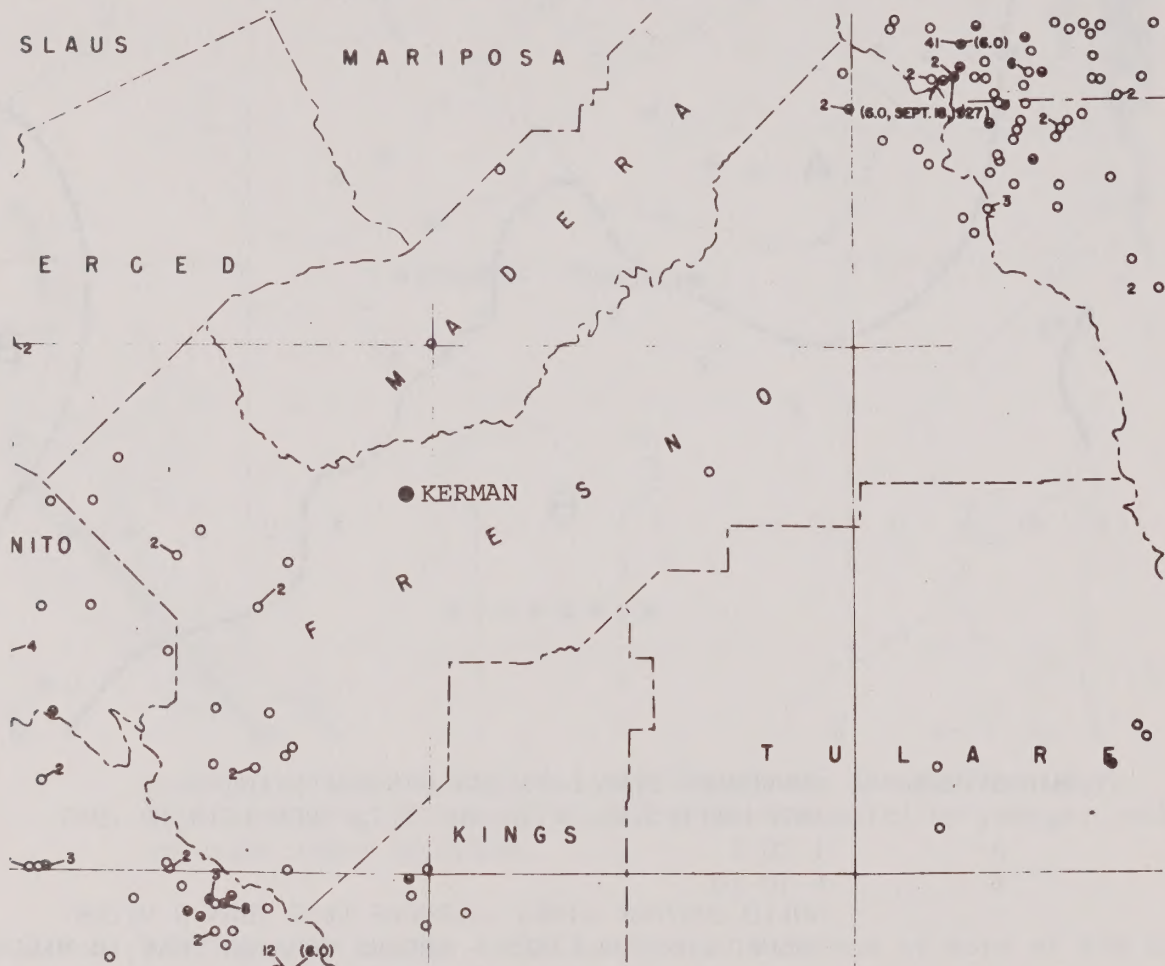
This map indicates the approximate number of earthquakes that have produced a Modified Mercalli intensity of VI to VIII at a given locality in the time interval 1810 - 1969.

The reliability of the original data (and hence of this map) is very strongly dependent on population patterns. Thus the map is probably fairly accurate in the San Francisco and Los Angeles - San Diego areas. The values of the letters and location of the contours are much less reliable in the Central Valley and the Central Coast Ranges, and the contours and values are unreliable in the rest of the state.

This map does not indicate or imply periodicities in the occurrences of the intensities, and the map should not be used for this purpose.

The present mpa can be used to indicate in a very general way which areas have experienced an approximate number of occurrences of potentially damaging shaking in the last 160 years. Subject to a large number of assumptions, it also suggests that these same areas might experience approximately the same level in the next 160 years; but it does not indicate when the shaking will occur, and it does not indicate the exact level of shaking.

FIGURE 4
PRELIMINARY EARTHQUAKE EPICENTER 1934-1971



(Selected earthquakes greater than magnitude 6.0 which occurred prior to 1934 have been included with notations.)

○ Magnitude 4.0 - 4.9

◐ Magnitude 5.0 - 5.9

● Magnitude 6.0 - 6.9

Figures beside the locations indicate the number of earthquakes at the same place, all equal to or smaller than the one plotted.

The distribution, by place and magnitude, of earthquake epicenters in California gives a first approximation of where future epicenters may be expected, on the observed basis that the forces that produced past earthquakes are likely to produce future earthquakes in the same or nearby places. Statistical analysis of the magnitude and frequency of occurrence of past earthquakes and their exact location and sequence is one of the methods now used to predict earthquake activity (seismicity): the epicenter map is a beginning in that effort. Unfortunately, this map has far too limited a time base (1934-71) for statistical integrity in predicting earthquakes--as to either location or magnitude. A further limit to using this map to predict seismicity is the imprecise location of the epicenters shown. Those older than the installation of sufficient seismographs for quantitative epicenter location (about 1933) are based on subjective reports and are sometimes located only to the nearest degree of latitude and longitude. Those older than about 1850 are based on fragmental hearsay and may easily be in error by one or more degrees. Those since 1933, which comprise about 95 percent of epicenters shown on this map, are generally accurate to the nearest tenth of a degree--or about 6 miles.

The exclusion of the epicenters of earthquakes with recorded magnitude less than 4 is another limitation: such earthquakes do not damage man's works significantly, but the distribution of their epicenters would refine the apparent distribution of seismicity and could reveal fault activity not otherwise apparent.

USING THE EPICENTER MAP

An epicenter map, even if it could overcome the time-base and location-accuracy limitations inherent in the current state of the art, represents raw data for use in seismic safety planning. The epicenter map must be interpreted in the light of various assumptions and other data to be useful in local planning.

The most basic assumption underlying use of this map is that, where earthquakes have occurred before, they are most likely to occur in the future. Most earth scientists agree with this assumption in its most general terms, but there is no agreed way in the present state of the art to refine this concept and to predict when or where or how powerful the next earthquake--or the next 100 earthquakes--will be.

GOALS

IDENTIFY AND APPRAISE SEISMIC HAZARDS, LOCATE SOURCES OF DANGER AND IMPLEMENT MEASURES WHICH WILL MINIMIZE LOSS OF LIFE AND PROPERTY.

PROVIDE PROPER GEOLOGIC INFORMATION RELATED TO SEISMIC ACTIVITY FOR USE IN THE PUBLIC DECISION-MAKING PROCESS.

REALISTICALLY REVIEW THE SEISMIC PROBLEMS OF THE AREA AND TO DEVELOP PLANS AND REGULATIONS WHICH TAKE INTO ACCOUNT BOTH SEISMIC PROBLEMS AND THE FEASIBILITY OF SOLUTIONS.

ENCOURAGE AND FOSTER DEVELOPMENT IN AREAS OF LOW RISK POTENTIAL.

FIGURE 5
UNSTABLE GEOLOGY



REVIEW AND ALTER BUILDING CODES TO INCORPORATE RECENT ADVANCES IN THE STRUCTURAL DESIGN OF BUILDING TO IMPROVE EARTHQUAKE RESISTENCE.

DETERMINE THE PROBABILITY OF EARTHQUAKES AND RELATED FACTORS IN THE KERMAN PLANNING AREA.

LOCATE FAULTS AND DETERMINE FAULT ACTIVITIES IN THE KERMAN PLANNING AREA.

EVALUATE GROUND CONDITIONS IN THE KERMAN PLANNING AREA.

LOCATE POTENTIAL SOURCES OF DANGER IN THE CITY.

SPECIFY PRECAUTIONS TO BE TAKEN IN THE EVENT AN EARTHQUAKE WERE TO AFFECT THE CITY.

RECOMMENDATION

There has been little experience in this country in developing such an item as a Seismic Safety Element. A considerable amount of experience will be necessary within and between the professions having an interest in seismic problems--soils engineers, engineering geologists, seismologists, structural engineers, lawyers, planners, etc.--before an adequate description of the

general content and form of a Seismic Safety Element can be developed.

Through the economy of effort, funds, coordination and cooperation, the Council of Fresno County Governments has entered into a special agreement with five counties in order to properly address the common mandatory general plan requirement. The actual agreement and Regional Plan encompasses the Counties of: Fresno, Kings, Madera, Mariposa, and Tulare. The Plan is being prepared by an environmental planning consultant. Upon completion and review by the Planning Commission and the City Council, this General Plan Element should be reviewed and updated to coincide with the findings and recommendations as they apply to the City of Kerman.

The Safety Element discusses the need for developing emergency procedures for all types of safety hazards including earthquakes.

10

THE NOISE ELEMENT

INTRODUCTION

The Noise Element is one of the latest additions to the State's list of mandatory general plan requirements. The legislation states that each city and county general plan will have:

"A noise element in quantitative, numerical terms, showing contours of present and projected noise levels associated with all existing and proposed major transportation elements. These include but are not limited to the following:

1. *HIGHWAYS AND FREEWAYS,*
2. *GROUND RAPID TRANSIT SYSTEMS,*
3. *GROUND FACILITIES ASSOCIATED WITH ALL AIRPORTS OPERATING UNDER A PERMIT FROM THE STATE DEPARTMENT OF AERONAUTICS.*

These noise contours may be expressed in any standard acoustical scale which includes both the magnitude of noise and frequency of its occurrence. The recommended scale is sound level A, as measured with A-weighting network of a standard sound level meter, with corrections added for the time duration per event and the total number of events per 24-hour period.

Noise contours shall be shown in minimum increments of five decibels and shall be continued down to 65 dB(A). For regions involving hospitals, rest homes, long-term medical or mental care, or outdoor recreational areas, the contours shall be continued down to 45 dB(A).

Conclusions regarding appropriate site or route selection alternatives or noise impact upon compatible land use shall be included in the general plan.

The State, local, or private agency responsible for the construction or maintenance of such transportation facilities shall provide to the local agency producing the general plan, a statement of the present and projected noise levels of the facility, and any information which was used in the development of such levels."

This legislation is undoubtedly the most specific yet developed by the State Legislature. The requirements and responsibilities are indeed great for all agencies concerned. Unfortunately the true intent and purpose of the legislation was lost when the legislators specified that it be prepared for transportation elements. It would seem more reasonable to have State or nation-wide noise emission regulations rather than having each city determine conflicting standards to meet certain citizen values.

This Element has the potential of costing all those concerned a great deal of time and money. Unfortunately the responsibilities for information retrieval, research and alternative design implementation have not been appropriately supported with revenue.

At this time, using a cost-benefit analysis comparison, noise problems of this magnitude are very low on the community's priority list and thus cannot be undertaken at this time.

EXISTING CONDITIONS

A primary benefit of rural or small town life is a tranquil and relaxed environment. No single nuisance has such a disrupting effect on the peaceful environment as the intrusion of excessive noise.

Noise is generated today from an astounding number of sources ranging from television and loud music to jet aircraft roaring overhead. Typical noise sources include: jet take-off at 200 feet, discotheque, auto horn or riveting machine at three-noise levels above 110 dB(A), (*painfully loud*); a heavy truck, pneumatic drill, or freight train at 50 feet - 80 dB(A) and over, (*annoying and, if continuous for eight hours, can cause hearing damage*); and light, low speed auto traffic - 50 dB(A), (*quiet*).

It is estimated that the average level of noise to which man is subjected has been increased by one decibel each year. (*The decibel - dB(A) - is a logarithmic rather than linear function. This means that 110 decibels is ten times greater than 100 decibels - not 10% greater.*)

In Kerman, the principal sources of noise are from the Southern Pacific Railroad and trucking along Madera Avenue (Route 145) and Whitesbridge Road (Route 180). While the noise is highest during the agricultural harvest season, it is present year round on these two roads. Industrial and related activities in themselves sometimes may create moderate noise levels.

Additionally, cars, motorcycles, and the increasing dog population contribute to the occasional disruption of peaceful neighborhoods.

GOAL

TO IMPROVE THE LIVING, WORKING AND RECREATION ENVIRONMENT THROUGH THE REDUCTION AND CONTROL OF NOISE NUISANCE.

POLICIES

TO DEVELOP STANDARDS FOR MAXIMUM PERMISSABLE LEVELS AND DURATION OF NOISE EMANATING FROM VARIOUS STATIONARY SOURCES.

TO ARRANGE LAND USES IN SUCH A WAY THAT THE MAXIMUM PROTECTION FROM THE ADVERSE EFFECTS OF NOISE CAN BE ACCOMPLISHED.

TO ENCOURAGE AND, IF NECESSARY, ENFORCE A CIRCULATION PATTERN WHICH WILL ELIMINATE TRUCK TRAFFIC IN RETAIL COMMERCIAL AND RESIDENTIAL AREAS.

PROJECTIONS

Kerman does not have a major problem with aircraft noise. The greatest single noise generator is undoubtedly vehicular traffic, which appears to be unavoidable at this time. Increasing traffic can be expected on major streets and highways as the population grows and as car use continues to increase. However, Federal and State standards for acceptable vehicle noise levels are becoming more stringent and should largely counteract this general traffic noise problem.

Kerman has two highways, 180 and 145; both are being studied for possible future realignment. The State Division of Highways has studied the possibility of a northern and southern route. The Council has cited three important reasons:

1. THE GENERAL PLAN CONTEMPLATES RESIDENTIAL DEVELOPMENT IN A GENERAL NORTHERLY DIRECTION; SUCH DEVELOPMENT WOULD BE IMPAIRED AND DISCOURAGED BY THE ADOPTION OF A NORTHERN ALIGNMENT.
2. THE GENERAL PLAN CONTEMPLATES INDUSTRIAL DEVELOPMENT IN A GENERAL SOUTHERLY DIRECTION; SUCH DEVELOPMENT WOULD BE ENHANCED AND

ENCOURAGED BY THE ADOPTION OF A SOUTHERN ALIGNMENT.

3. IN THAT THE PREVAILING WINDS BLOW FROM THE NORTHWEST ACROSS THE COMMUNITY, A NORTHERN ALIGNMENT WOULD CAUSE NOISE, DIRT, POLLUTION AND NUISANCE TO THE ENVIRONMENT OF THE CITY OF KERMAN.

Highway 145 is being studied for an eastern realignment. The southern and eastern routes are undoubtedly the most advantageous routes for the community if the General Plan is to be fully realized.

As the Environmental Impact Reports are prepared, the State Division of Highways will have to resolve many problems. Perhaps one of the most important at that time will be noise. The General Plan indicates a linear park be part of any forthcoming project. Through extensive landscaping and barrier designs noise level emission can be significantly controlled.

The Land Use Plan indicates the possibility of linear parks on either side of future freeways in an attempt to set aside land for extensive landscaping and sound control barriers. This land could also be utilized as specialized open space recreation corridors, such as bike and horseback-riding trails.

RECOMMENDATION

As Kerman grows, it may be increasingly useful for the City to adopt, as part of its Municipal Code, a Noise Ordinance. The League of California Cities has a Model Noise Ordinance which can be easily adapted to Kerman's needs. The City of Fresno has also completed a noise ordinance which could serve as a suitable guide for Kerman. The essential role of such an ordinance is to establish maximum allowable noise generation from any given source in any particular zone. Control measures to enforce the ordinance are also provided.

The Land Use Element of the General Plan provides for suitable locations of industry, buffered from quiet residential neighborhoods. In addition, the Zoning Ordinance requires a Conditional Use Permit for any industry which could produce significant noise beyond its property lines. The Circulation Element provides for separation of truck and major through traffic from local residential and retail commercial streets.

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THE SCENIC HIGHWAY ELEMENT

INTRODUCTION

The California State Scenic Highway Program, established in 1963 by the State Legislature, is a unique effort to enhance the State's beauty, amenity, and quality of life. Interested legislators with the support of concerned citizens, enacted this law to identify and protect scenic corridors adjacent to state highways. The legislation established a master plan of scenic routes, created a Citizens Advisory Committee to develop standards and to advise the State Department of Public Works, and made the Department responsible for administering and coordinating the program.

CONCLUSION

While the Element is a requirement in all city and county general plans, it only can have application wherein a part of the State Scenic Highway System is located within the planning area of a city or county. Figure 1 indicates the state-wide system, and a blow-up (Figure 2) of the Fresno County area shows that the Kerman Planning Area presently contains no State scenic highway routes.

RECOMMENDATION

The State has indicated three routes in Fresno County on its master plan map, all of which are well outside the planning areas of most Fresno County communities. It is hereby recommended that an agency such as the Council of Fresno County Governments or the Fresno County Planning Department absorb the responsibility for providing a Scenic Highway Element for the County's General Plan.

Local government's adoption of a meaningful local plan directed toward protection and enhancement of California's scenic resources is

FIGURE 1

CALIFORNIA MASTER PLAN OF STATE HIGHWAYS ELIGIBLE FOR OFFICIAL SCENIC HIGHWAY DESIGNATION

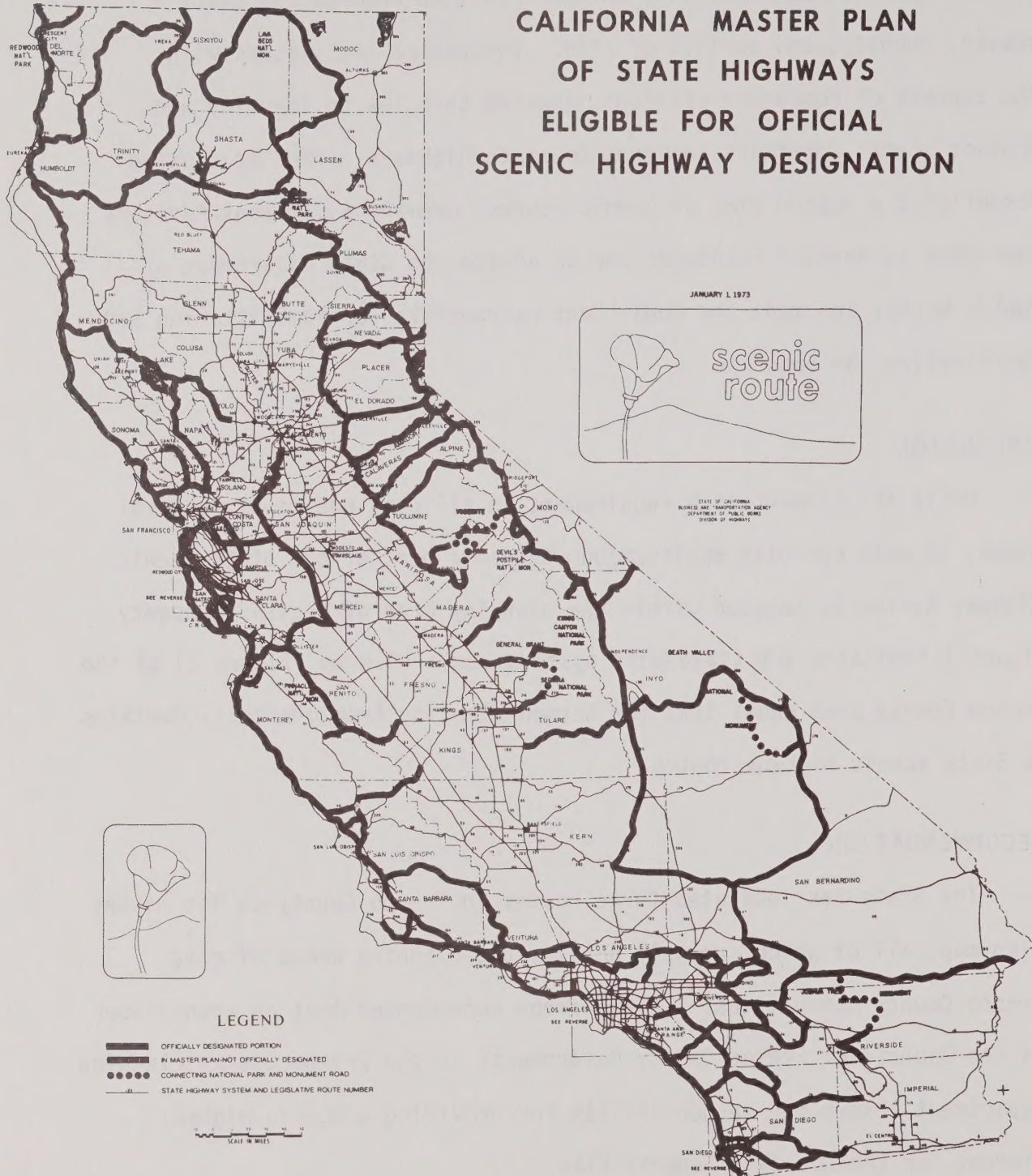


FIGURE 2



the true intent of the State's Scenic Highway Program. As with any new land use regulation, cooperation and understanding between private land owners and their elected representatives is needed.

Carefully planned development of corridor areas need not endanger the scenic resources nor should adoption of a scenic corridor plan endanger the local economic values. Both aspects can be developed in harmony. One thing is sure: *"What we do to destroy this State today will be long remembered, but what we do to protect California's beauty can be enjoyed forever."*

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THE SAFETY ELEMENT

INTRODUCTION

In April of 1971 the Government Code pertaining to planning was amended to include ". . . A Safety Element for the protection of the community from fires and geologic hazards including features necessary for such protection as education routes, peak load water supply requirements, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazards."

Three items just mentioned in the requirements must be addressed before further discussion of this Element can take place.

1. "GEOLOGIC HAZARDS AND THEIR MAPPING" ARE DISCUSSED IN THE SEISMIC SAFETY ELEMENT. EMERGENCY PROCEDURES ARE TO BE DISCUSSED IN THE CITY'S "EMERGENCY PLAN" (TO BE DEVELOPED TO IMPLEMENT THE SAFETY ELEMENT OF THIS GENERAL PLAN).
2. "MINIMUM ROAD WIDTHS" ARE DISCUSSED IN THE CITY'S SUBDIVISION ORDINANCE.
3. "CLEARANCES AROUND STRUCTURES" ARE COVERED IN THE CITY'S BUILDING CODE.

Generally the purpose of this Safety Element is to anticipate the community's growth by planning ahead to insure that the degree of safety afforded the citizens of Kerman either remains at the same rate (*number of service personnel to the number of city residents*) or hopefully gets better over the years.

EXISTING CIRCUMSTANCES

The citizens of Kerman have realized their responsibilities of providing a safe atmosphere in which to raise a family with peace of mind.

In 1943, the merchants of Kerman talked of forming a law enforcement agency. Two years later, on July 1, 1945, the Kerman Police Protection Agency was formed. A year later the city was incorporated as a sixth class city and decided to replace the Protection District with a City Police Department.

Today some twenty-seven years later, the department has six personnel, two patrol and one investigator's cars. The department is dedicated to serving the residents and business on a twenty-four hour basis.

The City of Kerman is served by the North Central Fire District. The station is located within Kerman and is staffed with four professional firemen. A volunteer group of approximately a dozen businessmen and residents furnish the additional manpower needed to fight the district's fires. Their equipment includes two 1,000 gallon pumpers. In the case of a fire outside the City Limits of Kerman, one unit remains to protect the city. The effectiveness of the services is exemplified by the class "six" protection rating given to the city by the Board of Fire Underwriters of the Pacific.

The water supply is obtained from five wells pumped by electrically powered, deep well, turbine pumps. The combined capacity of these wells is 3,066 gallons per minute. The average depth to ground water is 72 feet below the ground surface. The wells range from 200 feet to 470 feet in depth. Pumping levels vary from 79 to 90 feet. Each well is equipped with a sand trap and a hydropneumatic tank to maintain pressure in the system. The hydropneumatic tanks located at the wells provide the only storage in the system and range in size from 3,000 gallons to 7,500 gallons. A diesel engine provides auxiliary power at one of the wells. Water quality in the area is excellent.

The citizens of Kerman must realize that their local government must be prepared to react quickly and effectively in situations of crisis. In time of disaster the responsibilities of their leaders multiply in scope beyond those required for normal operations. The manner in which the resources (*personnel, equipment and supplies*) are utilized and the responsibilities discharged can be vital to the protection of life and property.

In order to assure the continuity of government, and its ability to react and provide needed services, it is necessary to adopt a basic operation plan for implementation during disaster situations. Such a document, with its associated annexes and standard operating procedures is exemplified in the "*FRESNO COUNTY EMERGENCY PLAN.*" The City of Kerman stands in need of such a document.

The general purpose of the Fresno County Emergency Plan is threefold.

1. PROVIDE A BASIS FOR THE CONDUCT AND COORDINATION OF OPERATIONS AND THE MANAGEMENT OF CRITICAL RESOURCES DURING EMERGENCIES.
2. ESTABLISH A MUTUAL UNDERSTANDING OF THE AUTHORITY, RESPONSIBILITIES, FUNCTIONS, AND OPERATIONS OF CIVIL GOVERNMENT DURING EMERGENCIES.
3. PROVIDE A BASIS FOR INCORPORATING INTO THE CITY, EMERGENCY ORGANIZATIONS, NON-GOVERNMENTAL AGENCIES AND ORGANIZATIONS HAVING RESOURCES NECESSARY TO MEET FORESEEABLE EMERGENCY REQUIREMENTS.

The plan describes basic emergency situations including:

EARTHQUAKE

FLOOD

FIRE

ACCIDENT

1. TRANSPORTATION

2. INDUSTRIAL

CIVIL DISTURBANCE

STORM

POLLUTION

EPIDEMIC

It then goes on to describe available emergency services including:

WELFARE/SHELTER

MEDICAL CARE

LAW ENFORCEMENT

TRAFFIC CONTROL

ENGINEERING

FIRE

RECOMMENDATION

In order to implement Kerman's Safety Element, the City must prepare an Emergency Plan. The City Council must determine the Plan's priority and back it appropriately with staff time and a workable budget. The Plan can be modeled after Fresno County's Emergency Plan to insure compatability and final acceptance.

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THE SOLID WASTE ELEMENT

INTRODUCTION

In mid-1972 the Governor of the State of California signed into law the tenth mandatory General Plan Element. The legislation requires each county to prepare a comprehensive, coordinated Solid Waste Management Plan. The legislation indicates that the planning responsibility may be transferred by the county, with the city's approval, to a regional planning agency (*The Council of Fresno County Governments*). Local solid waste management programs (public and private) will be required to conform to the county-wide plan. The plan is to be prepared, reviewed and adopted prior to January 1, 1976.

Fresno County has been interested in this problem for many years prior to this new law. In 1966 the State Department of Public Health made application for and was awarded a grant from the U.S. Public Health Service to undertake a systems-oriented study of the community, industrial, and agricultural solid wastes management needs of Central Fresno County.

The two-year study was a joint undertaking of government and private enterprise. Systems analysis and engineering phases were contracted to Aerojet-General Corporation, which collaborated with Engineering-Science, Inc. Many local county agencies participated in the Plan: Fresno County Planning Department, Fresno County Environmental Health Department, and the Public Works Department of the City and County of Fresno. The report is entitled "*The California Integrated Solid Waste Management Project--A Systems Study of Solid Waste Management in the Fresno Area.*" The document defines the problems and suggests solid waste management techniques. The report concludes by indicating the need for local policy decisions which could lead towards an implemented program.

EXISTING AND SHORT RANGE SITUATIONS

The City of Kerman does not operate its own dump site. The City presently contracts with a private solid waste disposal company for bi-weekly service. The company operates its own sanitary land fill site approximately 10 miles away at the corner of Chateau-Fresno and Muscat Avenues.

In addition to regular pick-ups, City residents have access to a new county facility established in 1971. The 20-acre disposal site serves approximately 12,000 persons in the Cities of Kerman, Tranquillity, and San Joaquin, and the surrounding unincorporated portions of the county. The dump site is located about seven miles southwest of Kerman on the north side of west American Avenue between the south Lake Avenue alignment and the south Humbolt Avenue alignment.

The site is operated by the County Public Works Department. The operation utilizes the trench disposal method of sanitary land fill. The site is expected to be in use for the next 15 years.

RECOMMENDATIONS

As the County of Fresno begins thinking about preparing the Solid Waste Element, several important questions will need to be addressed, several of which will certainly affect the City of Kerman.

TO WHAT EXTENT WILL THE COUNTY RESOLVE THE SOLID WASTE PROBLEM?

WILL THE COUNTY RECOMMEND RECYCLING PROGRAMS?--PRIVATE OR PUBLIC?

HOW WILL THE PROGRAMS BE FUNDED?

HOW MIGHT CITIES, SUCH AS Kerman BEST COOPERATE?

At the present time the City has only limited alternatives. One possibility is to study the pros and cons of the City operating its own dump site. In such a case the Public Works Department might be expanded to

include a solid waste disposal division. In any event the citizens can continue to support existing solid waste recycling programs in the area.

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THE RECREATION ELEMENT

INTRODUCTION

Planning community recreation is an important Element in the General Plan. The need for play and recreation is no longer confined to restricted age groups; it is a year-round activity for all, and some form of play or recreation for all age groups is a necessary element in contemporary living.

Originally the home supplied the recreational requirements for both children and adults, but modern conditions have made the home a restricted place to play for children and sometimes an unattractive one for elders. Play for children has outgrown the facilities offered by the average home, and urbanized conditions have greatly narrowed the possibilities for home recreation. Increases in the density of population have decreased the size of available yards, while new construction has eliminated most of the vacant space. Increasing amounts of traffic have made street play extremely hazardous. These conditions all point to the greater need for public recreational facilities. To locate and protect recreational sites as a part of the General Plan is one of the ways of insuring the community a place for recreation as the city grows and expands.

GOALS

ENHANCE THE WELL-BEING OF KERMAN'S RESIDENTS BY PROVIDING OPPORTUNITIES FOR RECREATIONAL, CULTURAL, AND LEISURE-TIME ACTIVITIES.

PROVIDE SUFFICIENT FACILITIES TO MEET KERMAN'S PRESENT AND FUTURE RECREATIONAL NEEDS.

MAINTAIN A HIGH LEVEL OF RECREATION PROGRAMS AND SERVICES APPROPRIATE TO THE COMMUNITY TO OBTAIN MAXIMUM BENEFIT FROM PARKS AND RECREATION FACILITIES.

ESTABLISH NEIGHBORHOOD PARKS, MINI-PARKS, OR PLAYLOTS WITHIN CONVENIENT WALKING DISTANCES FOR ALL RESIDENTS, ESPECIALLY THE VERY SMALL CHILDREN AND SENIOR CITIZENS.

PROVIDE SUFFICIENT PARK AREAS FOR LARGE GROUP ACTIVITIES, MEETINGS AND FOR OTHER RECREATIONAL ACTIVITIES WHICH ARE NOT SUITABLE FOR SMALL NEIGHBORHOOD PARKS.

UTILIZE SCHOOLS AND OTHER PUBLIC FACILITIES FOR RECREATION. DEVELOP AND OPERATE PARKS IN CONJUNCTION WITH SCHOOLS WHEREVER POSSIBLE.

INCLUDE FACILITIES FOR A FULL RANGE OF RECREATION AND LEISURE ACTIVITIES IN THE LOCAL PARKS, SUCH AS GREEN AREAS, PLAYLOTS, AREAS FOR SENIOR CITIZENS, COMMUNITY CENTER WITH MEETING ROOMS, AND A COMMUNITY SWIMMING POOL - WITH APPROPRIATE PROGRAMS.

PROMOTE COMMUNITY INVOLVEMENT IN PLANNING AND OPERATION OF RECREATION FACILITIES AND PROGRAMS.

EXISTING AND PROPOSED FACILITIES

The City of Kerman has several fine park facilities, the largest being Kerckhoff Park located at "G" Street and 3rd Street encompassing approximately 5.8 acres. The park includes a major baseball diamond complex with bleachers and night lights. Also within the park are picnic areas, a playground, open play area, swimming pool, and a scout building. The picnic and playground area (approximately one acre) is scheduled to be reconstructed. The design for the area to be reconstructed was designed by a group of students from the Recreation Department at California State University, Fresno. The design suggests a rolling terrain and includes covered picnic shelters capable of seating approximately 100 people; a pit and individual barbeques; a combination basket-volley ball court; a tot lot with equipment; and several other structured game areas. The design also includes adequate off-street parking. The plan is to be implemented in the Fall of 1973.

Wooten Park is located at "C" Street and Manor Drive and is approximately 1.5 acres. The area is flat and has a baseball diamond, open play area, and a small playground equipment.

Plaza Park is approximately 1.4 acres. The Linear Park is located on Madera Avenue between "C" Street and California. The park is ideally suited for quick picnic lunches, a rest stop and is a favorite meeting

place for city residents wishing to play table games.

In addition to the city parks Kerman has four schools. The Kerman Union High School located at 205 South First Street has approximately 16.9 acres devoted to multi-purpose recreational activities including tennis, volleyball, basketball courts, football and track and a large open play area.

The Kerman-Floyd Senior Elementary School located at 601 South First Street covers approximately 16.5 acres. A portion of that area is devoted to tennis, volleyball, basketball courts, and open play area.

The two other schools include the Kerman-Floyd Elementary School and the Trainable Mentally Retarded School located at 14655 "F" Street, which have similar facilities occupying approximately 7.0 acres.

The city will have another small mini-park in the near future, after Phase II of the Freedom Homes Development is completed. The park will be approximately .6 acres and will also serve as a flood control basin.

Additional recreational facilities are available commercially including a small privately operated racetrack for carts and bikes south of the railroad near the industrial uses. The Whitesbridge Golf Course offers an 18 hole course and driving range. It is located 9 miles west of Kerman on Whitesbridge Road at Napa Avenue.

Residents of Kerman are fortunate to have access to several outstanding parks located within a short driving distance of their community. Kearney Park is located approximately 7.5 miles east of Kerman. The facility offers many active and passive recreational opportunities on the 227 acre site. Roeding Park is located approximately 15 miles northeast of Kerman and offers a great variety of recreational opportunities. The site encompasses approximately 150 acres. Figure 1 indicates the various intensities of recreational lands within Fresno County.

In addition to the numerous regional parks within the San Joaquin Valley, Kerman is in close proximity to the Coastal Mountain Range and the High Sierra's with the three national parks: Kings Canyon National Park, Sequoia National Park, and Yosemite National Park.

In addition to the community's existing park facilities the City is studying the possibility of acquiring 15 - 20 acres outside the present city limits but within the planning area. The purpose of such a park will be to enable residents to walk or bicycle to a near-by passive recreation area free of outside disturbances. The park would have rolling terrain. Dense foliage and trickling waterways could invite outsiders in to hike and explore. Secluded picnic areas would enable local families to enjoy a pleasant experience together.

IMPLEMENTING TOOLS

The Subdivision Map Act of California permits cities to require the dedication of park land as a part of the land subdivision process. If the subdivision contains less than 50 lots, an in-lieu payment is provided for. The City of Kerman should encourage subdividers to furnish open space land, where possible, as a matter of self-interest as well as civic responsibility. The City should determine where the open space land should be located, in order that it best benefit the community, and not settle for an undesirable piece of "leftover" acreage.

The City of Kerman is one of the first communities in the nation to contract with a private firm for a complete recreation program. The program began in June of 1972 after a group of citizens asked the City Council to allocate funds for the project. Additional support came from local school boards, service clubs, merchants, and businessmen. The City formed a Recreation Commission to advise and approve all activities.

Most ideas start with the firm, Education Recreation Associates. They have offered, in addition to the usual athletic events, courses in personal improvement, hobbies, crafts, music, cooking, etc.. They have also sponsored trips, dances and weekly movies.

The program should continue for many years provided the citizens continue to support the various activities.

Future recreational facilities, based on future residential activity, have been indicated on the Medium and Long-Range Plans.

FIGURE 1



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**PUBLIC BUILDING,
SERVICES, AND
FACILITIES**

INTRODUCTION

This Element deals with the supportive needs of the community. It is broken down into parts for discussion purposes. The Element describes:

1. EDUCATIONAL FACILITIES
2. PUBLIC BUILDINGS AND SERVICES
3. QUASI-PUBLIC BUILDINGS AND SERVICES
4. PUBLIC UTILITIES AND SERVICES
5. WATER AND SEWER FACILITIES

EDUCATIONAL FACILITIES

The City of Kerman has five separate educational institutions on four sites within the City. An additional educational institution is located outside the City limits, but is within the Planning Area boundary.

Kerman-Floyd Elementary School is located at "F" and Ninth Avenues. It contains grades kindergarten through fifth. The elementary school presently has approximately 825 students enrolled, with a design capacity of about 1,080 students.

The Trainable Mentally Retarded School is moving from its old location at First and Sunset Street to a portion of the Kerman-Floyd Elementary School site on east "F" Street. The new structure is scheduled for occupation in the fall semester of 1973. Currently the institution educates approximately 47 pupils. Their new structure is designed to accommodate up to 72 students.

Kerman-Floyd Senior Elementary School is located at First and "F" Streets, housing grades sixth through eighth. Presently the school is beginning to show signs of overcrowding. The school has been designed to accommodate approximately 360 students and it is presently serving 385 students.

Kerman Union High School is located in the northwestern portion of the City at First Street and San Joaquin Avenues. It provides the necessary

educational experiences for students in grades nine through and including the twelfth. Approximately 648 students are enrolled with the present facilities capable of handling 704 students.

Buena Vista High School is located just north of the existing City limits on Whitesbridge Road near Del Norte Avenue. The school is operated as a continuation school.

Higher educational facilities may be pursued in Fresno. The two major institutions include Fresno City College (junior college) and the California State University, Fresno (*undergraduate and graduate programs*).

As Kerman continues to grow at its amazing rate, continued pressures will be placed on its present educational facilities. Each institution has ample spaces to accommodate planned growth. The Planning Commission, City Council and Boards of Education must continue to keep communication channels open to assist and insure that Kerman's high quality of education continues as the community grows. Each group has areas of responsibility that must be coordinated to realize individual and collective, short- and long-range goals.

PUBLIC BUILDINGS AND SERVICES

The City of Kerman is indeed proud of their relatively new City Hall. The facility houses the offices of the City's officials and police department. The building is located on Madera Avenue across from Plaza Park. The structure is contemporary in design and reflects the freshness of thought and community pride that most cities just talk about.

The community is fortunate to have two branches of county facilities, both located on Madera Avenue, one being the local Judicial Court and the other a branch of the Fresno County Free Library.

The City is about to realize a dream that it's envisioned for

approximately three years, a Community Center Building. The structure was made possible by a grant from the Department of Housing and Urban Development and City funds. The facility is located next to the City Hall, on the corner of "B" and Sixth Streets. The structure will have a multi-purpose room for community functions, a complete kitchen, a nurse's office, an art and reading room, and meeting rooms. There will also be rental office space for social service organizations and bath facilities for children, men and women. The total structure will occupy 5,100 square feet. The property will have a fenced play area for small children. Additional space will be provided for off street parking. When completed by the end of 1973, the community center should satisfy the basic social needs of a community the size of Kerman for sometime into the future.

QUASI-PUBLIC BUILDINGS AND SERVICES

The City of Kerman has many churches, clubs, and organizations which provide the spiritual and social interactions of a healthy community.

PUBLIC UTILITIES AND SERVICES

The Kerman Telephone Company operates and services the needs of the community. The company has offices located on Madera Avenue and a service yard located at "C" and Fourth Streets.

The Pacific Gas and Electric Company provides the necessary sources of power to the citizens of Kerman. Their offices are located on Madera Avenue. The company operates an electrical subpower station on North and Madera Avenues.

WATER AND SEWER FACILITIES

The City of Kerman is fortunate to have been included in the recently completed "*COMPREHENSIVE WATER AND SEWER PLAN FOR FRESNO COUNTY RURAL*

COMMUNITIES," prepared by Boyle Engineering in association with Harold Tokmakian and Associates for the County of Fresno. The report, dated 1971, was accepted by the Fresno County Board of Supervisors in June, 1972.

The report analyzes the existing sewer and water facilities and makes recommendations to accommodate population and land use projections.

The report was instrumental in advising the City Council of the condition of their existing facilities and advised the City to begin planning for future facilities and services.

A second, more specific report was prepared by Boyle Engineering entitled *"PROJECT REPORT SEWAGE SYSTEM IMPROVEMENTS FOR THE CITY OF KERMAN."* The report presents the preliminary engineering and cost estimates for the recommended collectors and interceptor sewers and an activated sludge sewage treatment plant.

The report was instrumental in pursuing State and Federal clean water grants. The community also successfully passed a bond election in order to raise the City's share of the total cost. The project is scheduled to begin within the next year.

For further details and specific plans, refer to the previously described documents.

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ADOPTION AND INTERPRETATION

ADOPTION

In California, the responsibility for the initiation and policy direction of a city planning program rests with the City Council. The Planning Commission is an advisory agency recommending policy, with final authority resting with the council. Therefore, if a General Plan is to truly reflect the official policy of local government it must be given official status through adoption by the legislative body.

For general law cities, California Planning Law requires that the Planning Commission hold at least one public hearing. The Commission may then make any changes it believes desirable before adopting the Plan as its official recommendation to the City Council. The legislative body must hold at least one public hearing before adopting the Plan and make such changes as it deems necessary, provided that proposed changes first are referred to the Planning Commission for a report before final action is taken. Since the implementation of many of the policies of the Plan will require action by Fresno County, adoption by the County Planning Commission and Board of Supervisors is highly recommended.

Unlike laws which are established by local ordinance, the Kerman General Plan is a statement of policy regarding future physical development. Its adoption by resolution of the City and County legislative bodies assures overall agreement between them; adoption also assures the legislative bodies and the people that the programs of their Planning Commissions are, in fact, the programs of the City Council and Board of Supervisors. At the same, time, adoption by the City and County assures periodic review and revision of the Plan to reflect those conditions and actual changes in the development picture which cannot be reasonably anticipated now. This latter assurance is essential since adoption is not

an irrevocable step which binds the City Council and Board of Supervisors to unchangeable positions in the future based on knowledge and prediction of today.

INTERPRETATION

In the administration and interpretation of policies and proposals of the Community General Plan, it must be clearly understood that both the report and the Plan Diagrams contained in this report together constitute the General Plan. While the Plan diagrams will be referred to most frequently, Plan proposals shown on the maps cannot be fully understood or interpreted without referring to the descriptive analyses, policies and proposals of all the Elements. Full value of the Plan will not be realized, nor will the public interest be served, if City and County Planning Commissions, the City Council and the Board of Supervisors give in to the temptation to rely solely on graphic proposals of the Plan.

The word "*general*" is a key to understanding the nature of policies and goals of the General Plan. It implies overall agreement on major questions without a straight jacket of inflexibility; it implies variation while working toward the achievement of common goals, and it implies adjustments of policies and proposals as changing conditions may dictate. While a properly administered General Plan demands flexibility, variation and adjustment, any changes in policy should result from careful study independent of pending applications for controversial zoning permits, problems created by inadequate public facilities, temporary fiscal problems, and other "*matters of the moment*." The policies and goals of the Plan should not be changed merely to accommodate special public and private interest. The integrity of the Plan must be maintained if it is to be an effective instrument of public policy among the City, County, private

enterprise and the public-at-large.

REVIEW OF CITY ORDINANCES

The strength of the City's legal position in enforcing the Plan's concepts lie in its Zoning and Subdivision Ordinances. It will be necessary in the near future for the governing bodies of the city to take steps that will insure that the concepts of the Plan are realized in the long run. These steps include conforming Zoning and Subdivision Ordinances to the concepts of the Plan.

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TOOLS FOR CARRYING OUT THE PLAN

The General Plan can become an effective instrument of the City only if the public officials and local citizens are able to understand its practical uses and limitations. It is not enough merely to prepare the plan and then expect its implementation to be automatic. Such an expectation will merely start a chain reaction of misunderstanding or needless public controversy which eventually will render the plan useless in practical terms.

If human needs and desires are maintained as the ultimate criteria for new programs and development, public acceptance will follow progress toward accomplishing the primary goal of the planning process--a better environment for the people. The people are the heart of our system of government--the government, in fact, is the people. Their needs, both collectively and as individuals, must be respected and given primary consideration.

Proposals of the General Plan will not be attained overnight. The task is continuous, on a week by week, month by month, and year by year basis. Over a span of several years, literally hundreds of recommendations on individual matters will be made by the Planning Commission and other non-legislative bodies.

Decisions by administrative officials and legislative bodies will cover nearly every aspect of public and private development activity. An important test of the Plan will be the extent to which agencies relate their actions to recommendations and decisions of the Plan. This can become a hopeless task unless the relative importance and roles of the various methods by which the Plan can be carried out are known and understood.

COORDINATION OF GOVERNMENTAL ACTIVITIES

Once the General Plan has been adopted, the greatest challenge to the local planning agency is to promote coordination of the programs of many agencies of government--*local, regional, State and Federal*--whose activities affect the development patterns of the Planning Area. The challenge is posed because each of the many agencies involved has distinct interests which rarely extend beyond concern for their single function. At first glance, coordination at the local level would appear relatively simple because local agencies are oriented to the same scene. However, such is not the case in practice because these local agencies do not always report directly to the same legislative body for complete policy direction. With regards to the regional aspects of coordination, the Council of Fresno County Governments (COG) is an association of governments to provide intergovernmental coordination and areawide planning. COGs can provide valuable technical assistance to local communities wishing to coordinate local activities with State and Federal agencies.

Planning agencies have no power to compel other public bodies. Their real power lies in their ability to influence positively the programs and activities of other agencies, since the planning agency is advisory to the City Council for policy directives, establishing the framework within which other agencies may work with the planning agency towards the achievement of overall goals. Two important tools for insuring systematic coordination are regular referral and the establishment of a Long-Range Financial Plan and Capital Improvement Program.

FINANCIAL PLAN

Local government provides services to the people and regulates certain activities for the common good. Therefore, the more important decisions

of local government are those which determine what services shall be provided and what activities shall be regulated. Of the many service requirements of a growing population, those involving capital expenditures for public facilities are of particular importance in carrying out the Community General Plan.

The framework for the systematic development of needed public facilities is provided by a Financial Plan. The capital expenditures involved generally fall into two categories:

1. ACQUISITION OF LAND AND RIGHTS-OF-WAY
2. CONSTRUCTION OF MAJOR PUBLIC WORKS
 - A. MAJOR STREETS AND HIGHWAYS
 - B. SEWER AND WATER SYSTEMS
 - C. PUBLIC BUILDINGS
 - D. PARKS AND RECREATION

Over a period of years, these expenditures involve many thousands of dollars. Considering the growing competition for the use of these dollars, it is apparent that local government cannot hope to meet the requirements for new and expanded facilities by distributing available funds equally among public works projects--the spreading of money too thinly results in an inadequate job and often increases costs in the long run. Determining which facilities shall be provided becomes a critical policy matter requiring careful scrutiny of the type of facility needed and the immediate and long-range fiscal capacities of local government.

The Community General Plan identifies the broad extent of needed public facilities and permits decisions on their general location and relative importance as a matter of official policy. Upon General Plan adoption the need becomes one of scheduling the development of needed facilities over a period of years. The device which will permit the programming of capital expenditures is called the Long-Range Capital Improvement Program.

Simply stated, a *Capital Improvement Program* is a priority list of public improvements which will be needed over a five to ten year period. From this list, projects are selected and recommended to the legislative body for inclusion in the Annual Budget. Each year the program is extended to maintain the long view. Financial data, including revenue estimates, and costs of projects once they are completed becomes a vital part of the program.

The role of the Planning Commission in this process (*as spelled out in the California Planning Law*) is to review all proposed projects to determine their conformity with policies of the plan; to list and classify all proposed projects, and to recommend a *coordinated* program of public works for the ensuing fiscal year. The law requires all public agencies, including school districts and other special districts, to submit their capital improvement projects to the city for such review. Thus, the local planning agency becomes an important tool of government management, assisting the legislative body and operating departments (*through the administrative officer*) in one of their most vital and difficult responsibilities. The Capital Improvement Program also encourages public understanding of major problems faced by local government in providing for the needs of an expanding population and economy.

The Capital Improvement Program is but one of the three major Elements of a Long-Range Financial Plan. The services and revenue programs are the other essential Elements of the Financial Plan. These Elements provide a long look at the fiscal requirements for operating and maintaining public services and providing needed public improvements. *The Public Services Program* seeks to balance the operating and capital expenditures of *all* public services with the planning area's needs and desires for these ser-

vices. Capital Improvements must be related to their operation and maintenance costs if the gradual provision of these improvements are to be realistic.

The Revenue Program deals with the acquisition and allocation of operating and capital expenditure funds necessary to carry out the Public Services and Capital Improvement Programs. The principal purpose of the Revenue Program is to identify all possible sources of revenue to determine the amounts of money which these sources realistically can be expected to provide. Once it is determined how much money will be available a period of time, it is necessary to adjust the Public Services and Revenue Programs to keep them in balance. Preparation of the Financial Plan, however, should be pursued as a single project, considering all Elements at the same time.

Because the property tax is the basic source of revenue to finance necessary public projects, it is important to note the relationship which should exist between tax policy and long-range fiscal planning. There must be a clear understanding of the relationship between fiscal policy and the total set of objectives government seeks to attain over a period of several years. When anticipated revenue and spending is projected only on an annual basis, local government often finds itself shaping tax policy in a continual atmosphere of crisis. Each year, problems of financing and taxation become more difficult to resolve when there is no program of long-range objectives. Tax policy should result from an explicit and clear definition of goals, evaluation of alternative plans and a deliberate choice from among the alternatives. Such a procedure will minimize the possibility of establishing spending and taxation policies by accident, often as a by-product of another decision.

DEVELOPMENT REGULATIONS

The preparation and administration of development regulations traditionally has been the major activity of planning agencies in California. Although not always fully understood by the general public, such measures as zoning, subdivision control and building line setbacks have become a familiar activity of local government. Staffs and planning commissions have become so involved with regulatory measures that little time has been available to develop sound policies as a basis for the regulations being administered.

From a strictly planning point of view, it can be argued that development regulations have been advanced out of proportion to their importance, resulting too often in unreasonable and arbitrary decisions no matter how dedicated the attempt to avoid them. This is especially true in rural areas where the pace of growth and development has not been rapid enough to point up the need for establishing planning policy as a basis for administering development regulations. The purpose of this section is to place the role of development regulations in proper perspective in carrying out the Community General Plan.

ZONING

Properly conceived and administered, the Zoning Ordinance becomes a most important means of translating proposals of the General Plan into reality. However, it should be immediately recognized that the scope of zoning is limited, dealing almost exclusively with the private use of land on a relatively short range basis. Zoning is specific and precise and cannot be substituted for non-regulatory programs such as the Financial Plan, and the preparation of more detailed plans establishing the feasibility and basis for development of major public facilities. The influence exerted

by these kinds of programs on a community development pattern is so great that zoning becomes, in part, a complementary tool supporting policies involving the expenditure of large sums of public money.

Controversies which develop in applying zoning often are a result of lack of attention to the role of non-regulatory programs in shaping community development patterns. A planning commission and city council can attempt to force urban land patterns in certain directions and at certain intensities, but it will not happen satisfactorily if the areas cannot be economically serviced with sewer and water facilities, if access is poor or non-existent, if the surrounding area is badly blighted or if there appears to be little prospect of other complementary facilities developing in the vicinity. Many city and county plans fall short of their goals because regulations through zoning and other measures are offered as the only means of carrying out the Plan.

The Zoning Ordinance establishes a definite relationship between land use regulation and policies and proposals of the General Plan and provides sufficient flexibility to accommodate changing conditions. Safeguards to assure the protection of individual liberty and the right of property and to avoid unjust discrimination have been balanced with the necessity for public regulation in the public interest.

SUBDIVISION REGULATIONS

In contrast with a Zoning Ordinance which regulates land use, the Subdivision Ordinance sets forth specific standards of design and physical improvements for the development of land as a subdivision.

The Subdivision Ordinance prescribes standards for street and lot design, sewer and water service, storm water drainage, street lighting and many other important regulations.

Years ago land was developed casually. It was not too important whether streets were paved or drained properly, whether a house was connected to a septic tank or public sewer, or whether sidewalks, lighting, and fire hydrants were provided. These conditions have changed, however, because of continuous urban population growth, increased costs of municipal services, and the ever present automobile.

The generally high standards of development required of urban subdivisions is dictated by the close proximity of people and the peculiar problem created by such living conditions, but high standards expressed in a subdivision ordinance can only be effective in concert with a consistently applied zoning ordinance and building codes.

BUILDING, HOUSING AND FIRE PROTECTION CODES

Up-to-date Building, Plumbing and Electrical Codes are important measures toward reducing trends of urban sprawl and further expansion of blighted housing conditions. These codes establish minimum standards of structural strength, plumbing and electrical installations, and fire protection. Potential Zoning Ordinance violations can be discovered and corrected in the process of checking building plans and initial field inspection prior to construction. Quite often, advice and counsel can be given which will result in lower costs and better construction.

SPECIFIC THOROUGHFARE PLANS AND BUILDING LINE SETBACKS

The General Plan identifies circulation needs within the planning area. It is essential that cooperative city-county-State efforts be made to protect existing and future street and highway alignments from encroachment. The task now is to establish aggressively specific plans for their alignments to facilitate the widening of existing road beds and the building

of entirely new road facilities. Precise planning and engineering as far in advance of construction as possible is a necessity.

Two legal devices may be listed to protect the beds of existing and future streets:

1. THE SPECIFIC PLAN LINE WHICH CAN BE USED EITHER FOR ENTIRELY NEW SECTIONS OF STREETS AND HIGHWAYS OR TO PROTECT AREAS REQUIRING ONLY WIDENING OF THE EXISTING RIGHTS-OF-WAYS; OR
2. A BUILDING LINE SETBACK ORDINANCE ALONG ALL ROADWAYS IDENTIFIED FOR PROTECTION.

There can be no doubt that these two functions, made possible by the joint cooperation of City, County and State agencies, can save the taxpayers many dollars over a short period of time. The cost of acquiring developed urban real estate can be so high that governmental agencies may be unable to acquire and build an essential facility. This, in turn, will create unsolvable problems of traffic movement and block development of desirable growth patterns.

ANNUAL REVIEW AND PERIODIC REVISION OF THE GENERAL PLAN

An alertness to changing conditions and unforeseen impacts is essential to the success of any planning program. Whether it be a new highway, large industrial development, or changes in the administration of local government. The planning program must respond to these shifts and unanticipated developments. Accordingly, the General Plan, based on the soundest of information and judgment now available, must be kept up to date. At any point in time two, five and ten years from now, the plan for future development should take both a medium- and long-range look ahead. The Plan should be reviewed jointly each year, preferably during the winter season prior to formulation of the Annual Budget. It is doubtful that major changes will be required during the annual review period for the next 3-5 years

unless growth and development activity has accelerated rapidly in the interim. At least once every five years the economic, population and space projections, and the standards of the General Plan should be analyzed to determine whether revisions are necessary in the policy goals of the Plan.

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APPENDICES

DEFINITIONS

- "MEAN" - A middle point between two extremes. (average)
"MEDIAN" - A value in an ordered set of values below and above which there are an equal number of values.

EXAMPLE:

SEVEN INCOMES ARE REPORTED TO BE: \$1, \$3, \$4, \$6, \$7, \$8, \$10
THE MEAN IS THE TOTAL MONEY MADE (\$39) DIVIDED BY SEVEN INCOMES
EQUALS \$5.55 - THE MEAN INCOME EARNED. THIS IS QUITE DIFFERENT
FROM THE MEDIAN WHICH IS \$6. THREE PEOPLE ABOVE \$6 AND THREE
PEOPLE BELOW \$6. THE MEDIAN IS MORE DRAMATIC WITH THE FOLLOWING

EXAMPLE:

SEVEN INCOMES ARE REPORTED TO BE: \$1, \$1, \$2, \$2, \$10, \$10
THE MEAN IS \$4.85
THE MEDIAN IS \$2.00

- "N.A." - Not Available

Wells, Reverend Donald W., *History of the Kerman Area*, Kerman, California.
1957.

Wilbur Smith and Associates, *Clayton General Plan*, Clayton, California.
August, 1971.

REVISIONS

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